

because it is the right thing to do. But also understand that if you do not care for your animals in the manner in which they are the least stressed, you will soon see it in your bank account. Stressed animals – for whatever reason- do not perform as well as animals that are not stressed. They get sick. They die.

>

> I'm trying to answer your questions as directly and honestly as possible.

>

> Why do you ask?

>

>

>

> Cyndi Young

> Brownfield Ag News

> O: 573-556-1229

>

> From: Faye Thompson [[mailto:\(b\) \(6\)@brownfieldnetwork.com](mailto:(b) (6)@brownfieldnetwork.com)]

> Sent: Monday, October 16, 2017 2:50 PM

> To: Cyndi Young

> <[cyoung@brownfieldnetwork.com](mailto:cyoung@brownfieldnetwork.com)<<mailto:cyoung@brownfieldnetwork.com>><[mai](mailto:mai)

> [lto:cyoung@brownfieldnetwork.com](mailto:cyoung@brownfieldnetwork.com)>>

> Subject: Re: RE: RE: Dear Cyndi, Thank you for responding...

>

>

>

> Well, actually a pig is in a gestation crate for about four months, unable to do anything except stand up or lie down.

>

>

>

> Do you think that is humane?

>

>

>

> Thank you,

>

>

>

> Faye

>

>

>

> On Monday, October 16, 2017, 12:33:40 PM PDT, Cyndi Young

> <[cyoung@brownfieldnetwork.com](mailto:cyoung@brownfieldnetwork.com)<<mailto:cyoung@brownfieldnetwork.com>>

> <<mailto:cyoung@brownfieldnetwork.com>>> wrote:

>

>

>

>

>

> Faye, I appreciate you asking. Gestation stalls keep mama pigs from laying on and squashing their piglets and also keep her from eating them.

>

> The barns I've been to where pigs are kept all have plenty of area for the pigs to move around while being sheltered from the extreme temperatures that often make them sick. Seriously, those barns are usually pretty quiet except at feeding time!!

>

>

>

> Cyndi Young  
> Brownfield Ag News  
> O: 573-556-1229  
>  
> From: Faye Thompson [[\(b\) \(6\)](mailto:(b) (6))]  
> Sent: Monday, October 16, 2017 9:39 AM  
> To: Cyndi Young  
> <[cyoung@brownfieldnetwork.com](mailto:cyoung@brownfieldnetwork.com)<<mailto:cyoung@brownfieldnetwork.com>><[mai](mailto:mai)  
> lto:cyoung@brownfieldnetwork.com>>  
> Subject: Re: RE: Dear Cyndi, Thank you for responding...  
>  
>  
>  
> Well, keeping a pig confined in a small space, considering pigs like to root, explore, socialize with other pigs, and I have to leave right now, but even just what it does to their bodies, bones, etc., is bad. Or do you think they are good?  
>  
>  
>  
> Thank you,  
>  
>  
>  
> Faye  
>  
>  
>  
> On Monday, October 16, 2017, 7:02:01 AM PDT, Cyndi Young  
> <[cyoung@brownfieldnetwork.com](mailto:cyoung@brownfieldnetwork.com)<<mailto:cyoung@brownfieldnetwork.com>>  
> <<mailto:cyoung@brownfieldnetwork.com>>> wrote:  
>  
>  
>  
>  
>  
> I will answer if you answer my question first  
>  
> What do you believe? And why?  
>  
>  
>  
>  
>  
> Cyndi Young  
> Brownfield Ag News  
> O: 573-556-1229  
>  
> From: Faye Thompson [[\(b\) \(6\)](mailto:(b) (6))]  
> Sent: Monday, October 16, 2017 9:01 AM  
> To: Cyndi Young  
> <[cyoung@brownfieldnetwork.com](mailto:cyoung@brownfieldnetwork.com)<<mailto:cyoung@brownfieldnetwork.com>><[mai](mailto:mai)  
> lto:cyoung@brownfieldnetwork.com>>  
> Subject: Dear Cyndi, Thank you for responding...  
>  
>  
>  
> I have to get ready for work, so this will be very short. What about something specific, the use of gestation crates.

Do you think that is humane?

>

>

>

> Thank you,

>

>

>

> Faye

>

>

>

> On Monday, October 16, 2017, 6:39:31 AM PDT, Cyndi Young

<[cyoung@brownfieldnetwork.com](mailto:cyoung@brownfieldnetwork.com)<<mailto:cyoung@brownfieldnetwork.com>>

<<mailto:cyoung@brownfieldnetwork.com>>> wrote:

>

>

>

>

>

> Faye,

>

> That question is too general for me to answer. I grew up on a farm where we raised livestock and had farrow to finish hogs (not in confinement- in lots and outbuildings) so I do have some experience with hogs as well as a minor in animal science at university where we studied hogs. For 30 years I've been in ag communications and visited many farms with hogs.

>

> I have been in more hog buildings than I can count and I have been on many "pasture hog/lot hog" farms. The hogs in the buildings were as calm and well cared for as those out in the elements. Actually, the hogs in buildings were easier for the farmers to observe to make sure they were getting what they need from an animal welfare perspective.

>

> For me, and this is totally my opinion, it all boils down to the farmer caring for the livestock. The majority of farmers are good. But there are bad apples in every bushel – as there are bad actors in every walk of life.

>

> I don't think I can honestly generalize an answer to your question.

>

> What do you believe? And why?

>

>

>

> Cyndi Young

> Brownfield Ag News

> O: 573-556-1229

>

> From: Faye Thompson [[\(b\) \(6\)](mailto:(b) (6))]

> Sent: Saturday, October 14, 2017 11:03 AM

> To: Cyndi Young

> <[cyoung@brownfieldnetwork.com](mailto:cyoung@brownfieldnetwork.com)<<mailto:cyoung@brownfieldnetwork.com>><[> \[lto:cyoung@brownfieldnetwork.com\]\(mailto:lto:cyoung@brownfieldnetwork.com\)>>](mailto:mai</a></p></div><div data-bbox=)

> Subject: Dear Cyndi, Do you believe the way...

>

>

>

> pigs are raised in CAFOs is humane?

>

>

>  
> Thank you,  
>  
>  
>  
> Faye

>  
> \_\_\_\_\_  
>

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**From:** [Dave Pyburn](#)  
**To:** [Bill Even](#); [Adria Huseth](#)  
**Subject:** RE: State ag officials warn cell-based meat companies against demonizing traditional options  
**Date:** Wednesday, February 27, 2019 7:28:00 AM

---

They may not "intend to denigrate real meat" but they do:

<https://www.inc.com/magazine/201711/jeff-bercovici/memphis-meats-lab-grown-meat-startup.html>

Dr. Dave Pyburn  
Vice President of Science and Technology  
National Pork Board  
1776 NW 114th St., Clive, IA 50325

Phone: 515-223-2634

Cell: (b) (6)

Fax: 515-309-5715

Email: [DPyburn@pork.org](mailto:DPyburn@pork.org)

---

**From:** Bill Even <BEven@pork.org>  
**Sent:** Tuesday, February 26, 2019 5:41 PM  
**To:** Dave Pyburn <dpyburn@pork.org>; Adria Huseth <ahuseth@pork.org>  
**Subject:** Fwd: State ag officials warn cell-based meat companies against demonizing traditional options

Begin forwarded message:

**From:** "POLITICO Pro Agriculture" <[politicoemail@politicopro.com](mailto:politicoemail@politicopro.com)>  
**Date:** February 26, 2019 at 5:24:02 PM CST  
**To:** <[beven@pork.org](mailto:beven@pork.org)>  
**Subject:** State ag officials warn cell-based meat companies against demonizing traditional options  
**Reply-To:** "POLITICO subscriptions" <[reply-fe88137976630c7e77-1161796\\_HTML-798884467-1376319-0@politicoemail.com](mailto:reply-fe88137976630c7e77-1161796_HTML-798884467-1376319-0@politicoemail.com)>

**State ag officials warn cell-based meat companies against demonizing traditional options**

By Catherine Boudreau

02/26/2019 06:22 PM EDT

A group of state agriculture officials expressed skepticism Tuesday that the nascent cell-based meat sector won't demonize traditional livestock production once the new products hit the market.

Officials from North Dakota, Missouri, Indiana and Illinois urged a top official from Memphis Meats — the San Francisco-based technology company that is developing cell-cultured meats like chicken, beef and duck — to avoid marketing the products as healthier or better for the environment than their conventional counterparts and to ensure they are accurately labeled.

"You have the opportunity to be the first to advertise this in a way that is truthful, in a way that doesn't tear down the alternative of traditional meat production," said Chris Chinn, Missouri's director of agriculture, during the National Association of State Departments of Agriculture's annual policy conference near Washington.

At one point during a panel discussion, North Dakota Agriculture Commissioner Doug Goehring described the development of cell-based meat as a "science experiment." He said that while he supports scientific innovations and greater consumer choice, he is concerned that manufacturers will try to differentiate the emerging technology in the marketplace by resorting to baseless claims about its environmental impact, to the detriment of ranchers.

Eric Schulze, vice president of product and regulation at Memphis Meats, said the company does not intend to demonize any production method. "Where we make mistakes, we try to admit them publicly," Schulze said, noting that cell-based meat previously had been referred to as "clean meat."

"We realized early on that that wasn't the right word," he added. "So we adopted a much more factual, objective term — cell-based meat. It's taken off since then."

Cell-based meat, which involves replicating animal cells in a lab and growing them into tissues to create meat products, is still a few years away from entering the market. But debate over what to call the products and how to label them has presented a problem for policymakers and begun to roil the agriculture industry — particularly after the buzzy technology shot to the forefront of USDA and FDA's regulatory agenda last year. The debate was on display during a [public meeting](#) in October, though it appears USDA will have the final say on labeling questions.

Under a high-level USDA-FDA [joint regulatory framework](#) announced in November, FDA will oversee animal cell collection and cell growth, while USDA will be responsible for the production and labeling of products derived from the cells of livestock and poultry.

FDA Commissioner Scott Gottlieb, following remarks at the NASDA conference on Tuesday, told reporters that the agency and USDA "within weeks" will issue a memorandum of understanding on regulation of cell-based meat that establishes a "bright line" on jurisdictional issues. He added that it will be high-level, and not differ much from the arrangement that he and Agriculture Secretary Sonny Perdue have outlined publicly.

Memphis Meats is engaging with federal regulators and the North American Meat Institute, a trade association representing major meat packers — some of which

have invested in the company, including Tyson Foods — to ensure products are safe and labeled truthfully, Schulze said.

Illinois Director of Agriculture John Sullivan said Memphis Meats' assertion that it wants to work with the livestock sector seems "disingenuous" based on how the company describes its technology on its website. The company states that the process of developing cell-based meat is like "a farm at a tiny scale."

"I don't think a laboratory is what any one of us think of as a farm on any scale," Sullivan said.

There is a range of opinions on the proper terminology to use to refer to the burgeoning technology. The National Cattlemen's Beef Association wants the term "beef" to be off-limits for cell-based meat, and in statements the group has referred to the products as "lab-grown fake meat." NAMI and Memphis Meats have rallied around using "cell-based meat and poultry."

Memphis Meats believes that it would be truthful for their product labels to bear the name "meat," Schulze said, but he cautioned that such conversations are premature.

Rhonda Miller, a meat science professor at Texas A&M University, echoed that opinion during the NASDA panel. She said that while it is still early to make decisions about how to label the new technology, the guidelines USDA will develop will be comparable to what the department requires of other meat products.

Still, cell-cultured tissue should not be called "meat" until it has been vetted and shown to be the same as the traditional version in composition, nutrient quality, palatability and other characteristics, Miller said.

Sarah Collins, senior manager of government relations for Tyson Foods, predicted that USDA's regulatory approach will provide consistency in labeling and avoid misleading claims and consumer confusion.

"We haven't, honestly, had any discussions internally [at Tyson Foods] about what it should be labeled or what it should be called, so I don't want to speak to that," Collins said during the NASDA session Tuesday. "But I think something we care about, both for consumers and this emerging industry, is that the labels are truthful, informative and consistently implemented across the country."

*Helena Bottemiller Evich contributed to this report.*

*To view online:*

<https://subscriber.politicopro.com/agriculture/article/2019/02/state-ag-officials-warn-cell-based-meat-companies-against-demonizing-traditional-options-1220450>

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**From:** [Dave Pyburn](#)  
**To:** [Craig Morris](#)  
**Cc:** [Steve Larsen](#); [John Johnson](#); [Bill Even](#)  
**Subject:** RE: Today's News  
**Date:** Friday, April 27, 2018 2:56:58 PM

---

At RMC:

## AMSA RMC 2017 - MONDAY TECHNICAL SESSIONS

### Monday, June 25

8:30 am - 9:30 am

### Keynote Speaker: Karl Brophy, CEO, Red Flag

Presentation Topic: Out of the Frying Pan and Off the Fire: Global Politics Looking to Take Meat off the Menu” will be led by Karl Brophy, the Founder and CEO of Red Flag, a global risk analysis and campaigning agency. With Brophy’s experience and knowledge of working with some of the world's largest corporations and industry associations he has great insights to share regarding global political trends. The once niche topics of food science, nutrition and safety have changed dramatically. International bodies like the World Health Organization and dogmatic activists are increasingly influencing food regulation using skilled communication techniques. Where have we been? What have we learned? And how are we going to counter these trends?

10:00 am-12:00 pm

### Concurrent Technical Session I - The Future of Cultured Protein

#### *Sponsored by Cargill*

- This session will focus on the science behind Cultured Meat, what’s needed for future growth and why companies are investing in this.
- **Speakers:** [Dr. Liz Specht, Good Food Institute](#); Lisa Feria, Chairman of Stray Dog Capital and the leader of the Glass Wall Syndicate, and Eric Schulze, Memphis Meats

Dr. Dave Pyburn  
Vice President of Science and Technology  
National Pork Board  
1776 NW 114th St., Clive, IA 50325

Phone: 515-223-2634  
Cell: (b) (6)  
Fax: 515-309-5715  
Email: [DPyburn@pork.org](mailto:DPyburn@pork.org)

---

**From:** Craig Morris  
**Sent:** Friday, April 27, 2018 8:56 AM  
**To:** Dave Pyburn <dpyburn@pork.org>  
**Subject:** FW: Today's News

Losing war...

---

**From:** Laurie Bryant <[lauriebryant@micausa.org](mailto:lauriebryant@micausa.org)>  
**Sent:** Friday, April 27, 2018 6:19 AM  
**Subject:** Today's News

The following hyperlink will take you to the free CME daily market report  
[www.dailylivestockreport.com](http://www.dailylivestockreport.com)

Click on the hyperlink to view Today's News <http://www.micausa.org/member-news/>

### **Secretary Perdue To Allow Modified FMD Virus Onto U.S. Mainland Under Specific Conditions for Vaccine Development**

*USDA, April 26, 2018* WASHINGTON, April 26, 2018 – Secretary of Agriculture Sonny Perdue has authorized the movement of a modified, non-infectious version of the Foot and Mouth Disease (FMD) virus from the Plum Island An...

---

### **Cattle on Feed and Slow Herd Expansion**

*Drovers CattleNetwork, Derrell Peel, Oklahoma State University Extension April 26, 2018* The April 1 inventory of feedlots over 1,000 head capacity was 11.729 million head, up 7.4 percent from last year. This report was very close to pre-report estimates and contained no surprises...

---

### **NAMI testifies during US-China economic and security hearing**

*April 26, 2018 - by MEAT+POULTRY Staff* WASHINGTON — Bill Westman, the senior vice president of international affairs for the North American Meat Institute (NAMI), testified on April 26 to the US-China Economic and Security Review Commi...

---

### **Will a true cattle disease traceability program please stand up?**

*Beef Magazine, Burt Rutherford | Apr 25, 2018* The time to move the conversation about animal disease traceability forward has come. For the past 20 years, the subject of animal disease traceability has been raised, cussed and kick around...

---

### **The losing war against fake meat**

*Chicago Tribune, Steve Chapman April 25, 2018* When you visit a grocery, literal-mindedness is a handicap. Apple butter is actually not a dairy product. Grape-Nuts cereal omits grapes as well as nuts. Corn dogs don't need leashes. The...

---

### **EU looks to offer Trump a bigger slice of its beef market as trade war looms**

*Politico, By Hans von der Burchard and Jakob Hanke 4/25/18*, Emmanuel Macron and Angela Merkel are visiting Washington this week to try to avert a showdown. Brussels is preparing to allow U.S. President Donald Trump to sell more tariff-free American be...

---

### **US meat is safe for Britons to eat post-Brexit says American farmers' union boss**

*The Express, Thu, Apr 26, 2018* CHICKEN washed in chlorine and beef from hormone-injected cattle should be part of a trade deal with the US, the president of America's National Farmers Union (NFU) has said. Food produced in the...

---

### **CDC: Ground Beef Salmonella Outbreak in 2016-17 Traced to Dairy Cows**

*Drovers CattleNetwork, Wyatt Bechtel April 25, 2018* After more than a year the CDC has released findings from a report showing a Salmonella outbreak in the southwest was traced back to dairy cattle in New Mexico. A report from the Centers of D...

---

### **The decline of traditional meals?**

*Meat & Poultry, April 25, 2018 - by Monica Watrous* MIAMI — Is dinner in danger? Consumption of America's "main" meal has declined among millennials and Generation X, said Shelley Balanko, Ph.D., senior vice president of Business Development at...

---

### **Plant-based protein coalition fights back on label challenge**

*Meatingplace, By Chris Scott on 4/25/2018* A group of companies at the forefront of the plant-based protein movement is pushing back against calls by the U.S. Cattlemen's Association (USCA) and others to change how they label their products....

---

### **Trump says Mnuchin going to China to negotiate trade in days**

*AJOT, By: Justin Sink and Saleha Mohsin | Apr 24 2018* Treasury Secretary Steven Mnuchin will depart for China to negotiate over U.S. trade disputes within days, President Donald Trump said. "We have a very good chance of making a deal," Trump ...

---

### **Nafta talks ramp up in Washington as Trump says it's going well**

*AJOT, By: Eric Martin, Cyntia Barrera Diaz and Josh Wingrove | Apr 25 2018* As President Donald Trump says Nafta talks are "doing very nicely," negotiations between ministers from the U.S., Mexico and Canada are ramping up in Washington in a redoubled push for a deal....

---

### **Canadian E. coli outbreak probe triggers pork recall**

*April 25, 2018 - by MEAT+POULTRY Staff* OTTAWA – The Meat Shop at Pine Haven in Wetaskiwin, Alberta, launched a recall of raw pork products on concerns the items may be contaminated with E. coli O157:H7, the Canadian Food Inspection Agenc...

---

Click on the hyperlink to view Today's News <http://www.micausa.org/member-news/>

*Regards,*

*Laurie Bryant*

*Meat Import Council of America, Inc.*

*1150 Connecticut Avenue NW, 12<sup>th</sup> Floor*

*Washington, D.C. 20036*

*Phone: (703) 522-1910*

*Mobile: (b) (6)*

Email: [lauriebryant@micausa.org](mailto:lauriebryant@micausa.org)



**Register today for Center of the Plate Training, College Station, TX, June 5-7**

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*Animal Care and Handling Conference, Kansas City, MO, Oct. 18-19*

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**From:** [John Johnson](#)  
**To:** [Dave Pyburn](#)  
**Subject:** Tweet by Helena Bottemiller Evich on Twitter  
**Date:** Tuesday, July 10, 2018 12:11:35 PM

---



**Helena Bottemiller Evich (@[hbottemiller](#))**

[7/10/18, 10:06 AM](#)

FDA has posted the agenda for a hotly-anticipated lab-grown/cultured meat meeting on Thurs. [@MemphisMeats](#), [@justforall](#), [@FinlessFoods](#) are all taking part, along w/meat scientists, academics & FDA officials.

[fda.gov/downloads/Food...](#)

John A. Johnson

**From:** [Jim Murray](#)  
**To:** [Jarrod Sutton](#)  
**Subject:** RE: Tyson Foods to Launch Plant-Based and Food Waste-Based Product Lines  
**Date:** Friday, February 23, 2018 2:29:48 PM  
**Attachments:** [image001.png](#)

---

How do we get a voice at that table? I believe that the pork industry has a pretty amazing story when it comes to not wasting anything. This as opposed to the Plant-Based side of the business that boasts a 40% approximate waste factory. Most of which is in the field. JM

---

**From:** Jarrod Sutton

**Sent:** Friday, February 23, 2018 11:52 AM

**To:** Stephen Gerike <SGerike@pork.org>; David Bottagaro <DBottagaro@pork.org>; Jim Murray <JMurray@pork.org>; Neel Sahni <NSahni@pork.org>; Angie Krieger <AKrieger@pork.org>; Patrick Fleming <pfleming@pork.org>; Brittany Bailey <BBailey@pork.org>; Jose De Jesus <JdeJesus@pork.org>; Sara Crawford <SCrawford@pork.org>; Kylee Deniz <KDeniz@pork.org>; Jason Menke <JMenke@pork.org>

**Subject:** Tyson Foods to Launch Plant-Based and Food Waste-Based Product Lines

## Tyson Foods to Launch Plant-Based and Food Waste-Based Product Lines

February 22, 2018 by [Jill Ettinger](#)

Tyson Foods, the world's second-largest processor and marketer of chicken, beef, and pork products says it's launching a [plant-based protein](#) line called Green Street.

"Tyson Foods is transforming from a company with a strong heritage in chicken to a modern food company that is challenging the industry status quo," President and Chief Executive Officer Tom Hayes said at a recent conference. "Consumers expect more from food companies today, and we're up for the challenge. We're combining our size and scale with agility to make food people want to eat. That's driving our business and helping us deliver top-tier returns for shareholders."

The company says it's "changing the game with new growth models," which includes the Green Street launch. The new products address two consumer needs: ready-to-eat meals and a demand for plant-based protein. Green Street will be "grab-and-go bowl that are 100% plant-based," the company says.

The company made headlines in recent years with investments in plant-based startup [Beyond Meat](#) and most recently into [Memphis Meats](#), a clean meat company that relies on cellular agriculture to "grow" meat from animal cells without the need for raising live

animals.

Through its Tyson Ventures, the company says it's backing "talented entrepreneurs who are pioneering breakthroughs in food and food-focused technologies." Its initial investments included Beyond Meat, Memphis Meats, and Tovala, a smart oven that "cooks pre-prepared meals with the scan of a code and the touch of a button."

The company also recently launched the "Tyson Innovation Lab," which is about "exploring new approaches to accelerate the pace of innovation," the company says. "The lab brings together a lean team of designers, chefs, scientists and supply chain experts in a dedicated space at the company's Chicago office and gives them six months to go from an idea to an in-market solution." Its first mission is [food waste](#), Tyson says. "For the first product launch, they are finding opportunity in wasted food. Utilizing what goes unused in the food supply chain as ingredients, they are developing a line of protein snacks branded 'YAPPAH'."

### **Jarrod Sutton**

Vice President, Domestic Marketing  
National Pork Board, Des Moines, IA

P 515 223 2766 | C (b) (6)

[jsutton@pork.org](mailto:jsutton@pork.org)



---

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**From:** [Cindy Cunningham](#)  
**To:** [Dallas Hockman](#)  
**Subject:** Re: USDA FDA Joint Animal Cell Cultured Meat Technology Public Meeting  
**Date:** Tuesday, September 11, 2018 8:55:08 PM

---

I'm very confused when this is? And is t Lauren going to be at it?

Cindy Cunningham  
Assistant Vice President, Communications  
National Pork Board  
515-210-1263  
Sent from my iPhone

On Sep 11, 2018, at 4:59 PM, Dallas Hockman <[hockmand@nppc.org](mailto:hockmand@nppc.org)> wrote:

Cindy, can you cover this?

John A. Johnson

Begin forwarded message:

From: "Dallas Hockman" <[hockmand@nppc.org](mailto:hockmand@nppc.org)<<mailto:hockmand@nppc.org>>>  
To: "Cindy Cunningham"  
<[ccunningham@pork.org](mailto:ccunningham@pork.org)<<mailto:ccunningham@pork.org>>>, "Chris Hostetler"  
<[chostetler@pork.org](mailto:chostetler@pork.org)<<mailto:chostetler@pork.org>>>, "Liz Wagstrom"  
<[WagstromL@nppc.org](mailto:WagstromL@nppc.org)<<mailto:WagstromL@nppc.org>>>, "John Johnson"  
<[johnjohnson@pork.org](mailto:johnjohnson@pork.org)<<mailto:johnjohnson@pork.org>>>, "Rhea Schirm"  
<[rschirm@pork.org](mailto:rschirm@pork.org)<<mailto:rschirm@pork.org>>>  
Subject: USDA FDA Joint Animal Cell Cultured Meat Technology Public Meeting

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Please conserve our natural resources, think twice before you print this e-mail.

<meeting.ics>

**From:** [Dave Pyburn](#)  
**To:** [Gene Noem](#); [Pat McGonegle](#)  
**Subject:** Re: Think Tank March 26 - Register today!  
**Date:** Tuesday, March 12, 2019 5:55:06 PM

---

Gene, thanks for sending this but I will not be able be there as I will be on a plane back from Italy at that time.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

**From:** Gene Noem (b) (6)  
**Date:** 3/12/19 5:48 PM (GMT-05:00)  
**To:** Pat McGonegle <[pmcgonagle@iowapork.org](mailto:pmcgonagle@iowapork.org)>, Dave Pyburn <[dpyburn@pork.org](mailto:dpyburn@pork.org)>  
**Subject:** Fwd: Think Tank March 26 - Register today!

In case you all had not seen this.  
the only cost for this event is the meal.

----- Forwarded message -----

**From:** Morris, Keri K [AN S] <[kkmorris@iastate.edu](mailto:kkmorris@iastate.edu)>  
**Date:** Tue, Mar 12, 2019 at 3:10 PM  
**Subject:** Think Tank March 26 - Register today!  
**To:** [animalagtank@iastate.edu](mailto:animalagtank@iastate.edu) <[animalagtank@iastate.edu](mailto:animalagtank@iastate.edu)>  
**Cc:** Lawrence, John D [VPEO] <[jdlaw@iastate.edu](mailto:jdlaw@iastate.edu)>, Colletti, Joe P [AEX S] <[colletti@iastate.edu](mailto:colletti@iastate.edu)>, Acker, David G [AEX S] <[dacker@iastate.edu](mailto:dacker@iastate.edu)>, Robison, Daniel J [AGLS] <[robisonjd@iastate.edu](mailto:robisonjd@iastate.edu)>, MacDonald, Ruth S [FSHNA] <[ruthmacd@iastate.edu](mailto:ruthmacd@iastate.edu)>, (b) (6), Jamee Eggers <[jegggers@iowapork.org](mailto:jegggers@iowapork.org)>, (b) (6), [ans\\_department@iastate.edu](mailto:ans_department@iastate.edu) <[ans\\_department@iastate.edu](mailto:ans_department@iastate.edu)>, [Ans\\_retirees@iastate.edu](mailto:Ans_retirees@iastate.edu) <[Ans\\_retirees@iastate.edu](mailto:Ans_retirees@iastate.edu)>

# You are invited to a Think Tank Meeting

**Date:**

Tuesday, March 26th, 2019

## **Time:**

Social 6:00-6:30 p.m.

Dinner: 6:30-7:00 p.m.

Program: 7:00-8:00 p.m.

## **Where:**

Jeff and Deb Hansen Agriculture Student Learning Center, 2508 Mortensen,  
Ames

## **Who:**

Dr. James Reecy, Professor of Animal Science; Associate Vice President for  
Research

Dr James Dickson, Professor of Animal Science, Professor in Charge, Food Safety  
Consortium

Dr. Stephen Sapp, Professor of Sociology

Dr. Rodrigo Tarte, Assistant Professor of Animal Science and Food Science and  
Human Nutrition

## **Title:**

"Cell-cultured Meat: Current status, future prospects "

The discussion will open with an overall introduction to the history, basic background, and development of cultured meats. Then, the scientists will focus the discussion to 1. technology of cell cultured meats, 2. regulatory, naming, and labeling issues, and 3. social and consumer issues. Bring your questions and concerns to examine the future of the meat industry.

**Please register your attendance by clicking on the link below by Noon on Friday, March 22nd, 2019.** <https://isuanimalscience.typeform.com/to/tcJDtK>

\* Next Think Tank Meeting: Interaction with the Animal Agriculture Commodity Groups at the Iowa Cattlemen's Building on April 30 at 6 p.m.

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Please conserve our natural resources, think twice before you print this e-mail.

**From:** [Dave Pyburn](#)  
**To:** [Niall Dunne](#)  
**Bcc:** [Rhea Schirm](#)  
**Subject:** Re: Cell Based Meats Meeting  
**Date:** Monday, October 22, 2018 11:44:17 AM  
**Attachments:** [image001.png](#)

---

Sounds good and please be sure to introduce yourself to me at the meeting.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

**From:** Niall Dunne <[Niall.Dunne@hansonwade.com](mailto:Niall.Dunne@hansonwade.com)>  
**Date:** 10/22/18 10:21 AM (GMT-06:00)  
**To:** Dave Pyburn <[dpyburn@pork.org](mailto:dpyburn@pork.org)>  
**Subject:** RE: Cell Based Meats Meeting

Hi Dave,

Thank you for sparing the time to schedule a call.

I wanted to get in touch to discuss the conference and evaluate what value you might get out of it.

But, as you've already booked on, it may not be the best use of your time now.

Thank you anyway, I look forward to seeing you at the meeting.

If you have any questions regarding the summit let me know.

Kind regards,  
Niall

Niall Dunne  
Delegate Acquisition Executive  
**[hansonwade](#)**

52 Grosvenor Gardens | London | SW1W 0AU  
T: +44 (0) 203 8627 315





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**From:** Dave Pyburn [mailto:dpyburn@pork.org]  
**Sent:** 22 October 2018 15:58  
**To:** Niall Dunne <Niall.Dunne@hansonwade.com>  
**Subject:** Cell Based Meats Meeting

Niall:

I understand you are wanting to discuss my reasoning for attending the Cell Based Meats Meeting. I am currently traveling to and at meetings in Missouri. I can either call you on my drive back on Thursday afternoon or we can schedule a time for you to call me on Friday. Your choice, just let me know. On Friday I do have a meeting from 3 to 5 PM already.

Dr. Dave Pyburn

Vice President of Science and Technology

National Pork Board

1776 NW 114th St., Clive, IA 50325

Phone: 515-223-2634

Cell: (b) (6)

Fax: 515-309-5715

Email: [DPyburn@pork.org](mailto:DPyburn@pork.org)

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**From:** [Capp Culver](#)  
**To:** [Justin Kamine](#)  
**Cc:** [Chris Hostetler](#)  
**Subject:** Re: E-Clips  
**Date:** Thursday, August 16, 2018 7:52:29 PM

---

Absolutely we'll make it happen.  
Chris let me know your arrangements when you get them.

Thanks

Capp

615-290-2442

On Aug 16, 2018, at 4:18 PM, Justin Kamine <[justin.kamine@kdcag.com](mailto:justin.kamine@kdcag.com)> wrote:

Chris,

That would be great, we would love to host you. Capp Culver who is cc'ed here is our lead guy in CA at that time and can walk you through the plant.

Capp, Chris is the Director of Animal Science at the National Pork Board and will be in Sacramento October 22.

Hopefully you guys can schedule a tour!

All the best,  
Justin

---

**From:** Chris Hostetler <[chostetler@pork.org](mailto:chostetler@pork.org)>  
**Sent:** Thursday, August 16, 2018 4:38 PM  
**To:** Justin Kamine <[justin.kamine@kdcag.com](mailto:justin.kamine@kdcag.com)>  
**Subject:** RE: E-Clips

Good afternoon, Justin.

I hope all is well.

I will be out in Sacramento in October and would like the opportunity to tour the food waste reclamation and processing pilot facility if that would be possible. I am hoping to arrive sometime Monday October 22 though I've not yet made my flight arrangements.

Thank you for considering.

Best regards,

*Chris Hostetler*

Chris Hostetler, PhD, PAS  
Director of Animal Science  
National Pork Board  
O: (515) 223-2606  
M: (b) (6)

---

**From:** Justin Kamine <[justin.kamine@kdcag.com](mailto:justin.kamine@kdcag.com)>  
**Sent:** Monday, February 26, 2018 6:51 AM  
**To:** Chris Hostetler <[chostetler@pork.org](mailto:chostetler@pork.org)>  
**Subject:** Re: E-Clips

Chris,

I hope all is well.

Absolutely it would be great to catch up.

This week is tough for me how about sometime in the upcoming weeks?

Justin

Sent from my iPhone

On Feb 23, 2018, at 3:50 PM, Chris Hostetler <[chostetler@pork.org](mailto:chostetler@pork.org)> wrote:

Hello Justin,

This landed in my inbox this afternoon and It reminded me that I need to touch base with you sometime soon. Hope all is going well!

Best regards,

*Chris Hostetler, PhD, PAS*

Director of Animal Science  
National Pork Board  
O: (515)223-2606  
M: (b) (6)

---

**From:** Dave Pyburn  
**Sent:** Friday, February 23, 2018 2:41 PM  
**To:** Scitech <[Scitech@pork.org](mailto:Scitech@pork.org)>  
**Subject:** FW: E-Clips

Dr. Dave Pyburn  
Vice President of Science and Technology  
National Pork Board  
1776 NW 114th St., Clive, IA 50325

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Cell: (b) (6)  
Fax: 515-309-5715  
Email: [DPyburn@pork.org](mailto:DPyburn@pork.org)

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**From:** Dave Pyburn  
**Sent:** Friday, February 23, 2018 9:24 AM  
**To:** NPB Senior Leadership Team <[NPBSeniorLeadershipTeam@pork.org](mailto:NPBSeniorLeadershipTeam@pork.org)>  
**Subject:** FW: E-Clips

<http://www.organicauthority.com/tyson-foods-to-launch-plant-based-and-food-waste-based-product-lines/>

The company also recently launched the “Tyson Innovation Lab,” which is about “exploring new approaches to accelerate the pace of innovation,” the company says. “The lab brings together a lean team of designers, chefs, scientists and supply chain experts in a dedicated space at the company’s Chicago office and gives them six months to go from an idea to an in-market solution.” Its first mission is food waste, Tyson says. “For the first product launch, they are finding opportunity in wasted food. Utilizing what goes unused in the food supply chain as ingredients, they are developing a line of protein snacks branded ‘YAPPAH’.”

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Email: [DPyburn@pork.org](mailto:DPyburn@pork.org)

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**From:** Michael Schumpp [<mailto:mschumpp@meatinstitute.org>]  
**Sent:** Friday, February 23, 2018 8:08 AM  
**To:** #DC Office <[DCOffice@meatinstitute.org](mailto:DCOffice@meatinstitute.org)>; #CA Office <[CAOffice@meatinstitute.org](mailto:CAOffice@meatinstitute.org)>; 'Pam.miller@mail.house.gov' <[Pam.miller@mail.house.gov](mailto:Pam.miller@mail.house.gov)>; (b) (6) <(b) (6)>; 'Eric Gustafson' <[eric@coastpacking.com](mailto:eric@coastpacking.com)>; Dave Pyburn <[dpyburn@pork.org](mailto:dpyburn@pork.org)>; Angie Krieger <[AKrieger@pork.org](mailto:AKrieger@pork.org)>  
**Subject:** E-Clips

1. [Lab-grown meat: It's about to be what's for dinner](#) - New York Post
2. [Meat products bolster U.S. trade picture](#) - Meatingplace
3. [Trump Administration Discusses Food-Box Plan With Grocers](#) - Bloomberg
4. [USDA secretary wants separate immigration program for agricultural workers](#) - Reuters
5. [Big beef looms over definition of lab-grown meat](#) - New Atlas
6. [USDA projects climbing meat production, falling prices](#) - Feedstuffs
7. [Tyson Foods to Launch Plant-Based and Food Waste-Based Product Lines](#) - Organic Authority
8. [California agriculture sees 'chilling, damaging effect' from wave of immigration audits](#) - CNBC
9. [New composting method may reduce antibiotic resistance spread](#) - Meatingplace
10. [Industry affirms safety of US meat, poultry](#) – Meat and Poultry
11. [Trump and Canada May Chill a Nafta Deal](#) - Wall Street Journal

- 
1. [Lab-grown meat: It's about to be what's for dinner](#) - New York Post

Familiar cuts of beef, pork and poultry turned out by San Francisco Bay Area-based Memphis Meats and its handful of competitors are 100 percent meat in taste and texture. The sizzle from the grill is there, too.

But these steaks, chops and chicken strips are entirely grown from animal cells in a petri dish, not raised down on the farm.

Alternatives to conventionally produced meat, whose water and land use, waste runoff and the controversy around antibiotic treatments have some consumers rethinking food sources, are positioned alongside plant-based meat substitutes to grab nearly one-third of the global protein market in the next few decades, said Liz Specht, senior scientist at the Good Food Institute.

Specht, who participated on a panel Wednesday at Northwestern University's Kellogg School of Management, said animal agriculture is ripe for a technology disruption that recreates the protein platform as we know it, now typically cultivating, growing and slaughtering animals at a cost to the environment.

Rethinking meat, including a lab's focus on prime cuts without byproducts, is a trend that's even luring giant traditional food companies, including Tyson Foods, the largest US meat company by sales, to take a chance on a future combining farm-raised meat, culture-grown meat and ever-advancing plant-based options, like black bean or soy burgers, in order to feed the globe's nearly 10 billion people by 2050.

Tyson in 2016 launched a \$150 million venture capital fund called Tyson New Ventures LLC. The fund's first investment was a 5 percent stake in Beyond Meats, a company making burgers, chicken and other traditional "meat" out of peas, carrot fiber and more. A venture unit of General Mills GIS also invested in the company.

The Tyson venture now has a stake in Memphis Meats, which has also drawn funding from Cargill, the privately held agriculture conglomerate. Investment details have not been released, but Memphis said at the time that Cargill's investment was part of \$17 million in funding that included stakes from Bill Gates, Richard Branson and venture-capital firms Draper Fisher Jurvetson and Atomico, the Wall Street Journal reported.

Justin Whitmore, executive vice president of corporate strategy and chief sustainability officer at Tyson, told the Kellogg event that his company considers technology-driven protein as an "and not an or" to conventional meat production — including the 10,000 farmers and ranchers who supply Tyson — as both approaches can go after a share of the \$2 billion meat industry. The size of Tyson's supply chain positions it to get the meat out of the lab and onto store shelves, Whitmore said.

"We don't want to be disrupted," he said. "We want to be part of the disruption."

While it's a tough conversation between Tyson and its producers, Whitmore said, farmers would be short-sighted to dismiss sustainability concerns. It takes about 3,963 gallons of water to produce 2.2 pounds of beef, compared with 422 gallons for 2.2 pounds of wheat, according to estimates from the Water Footprint Network.

David Kay, manager of communications and sustainability at Memphis

Meats, said the lab approach to “clean meat” can also reduce the risks of contamination and foodborne pathogens in the production chain, which can be a key marketing point. Traditional meat regulators, who are working with the firm, haven’t decided how they will oversee meat production that doesn’t involve feedlots and butchers.

Kay conceded that transparency and information sharing is key to his business getting a foothold among consumers also caught up in the “farm to fork” trend for which the notion of “processing” food in a lab may seem contradictory. He sees room in the market of the future for small, sustainable traditional farms.

But consumers can be won over, proponents believe. “You can, and are more likely to, tour Memphis Meats than tour a slaughterhouse,” Specht weighed in. She expects farm-based production to continue to grow for higher-margin products, using sustainable practices.

A study published last year by researchers at Australia’s University of Queensland, and cited by Memphis Meats, found that about a third of 673 respondents in the US would be willing to eat cell-cultured meat regularly. Nearly half said they would choose it over soy-based meat substitutes. About one-fifth said they were unlikely to try the meat or would refuse it.

Sergio Eleutorio, general manager of the Boca plant-based protein brand at Kraft Heinz, told the Kellogg panel that consumer preference drives their strategy. Weight-loss goals tended to set early demand for the lower-calorie Boca burger meat substitutes as the brand first gained traction in the 1990s.

Now, “flexitarians — who focus on a plant-based diet and eat meat occasionally — provide the most volume for Boca,” said Eleutorio.

Protein-consumption trends have moved in this industry’s favor. The recommended daily intake of protein for a healthy adult is 46 grams for women and 56 grams for men, yet most American adults eat about 100 grams of protein per day, or roughly twice the recommended amount. The Hartman Group, a consumer research firm that has been conducting a study of American food culture over the past 25 years, has found that nearly 60 percent of Americans are now actively trying to increase their protein intake as more try to avoid sugar and simple carbohydrates.

And with that trend, annual global sales of plant-based substitute meat have gained 8 percent a year since 2010, and are growing at twice the rate of processed meat, according to an October report from Bloomberg

Intelligence. That boost is thanks in part to expanding shelf space in Whole Foods Markets and other retailers. The market for meat substitutes may grow 8.4 percent annually over the next five years, with China helping to speed the expansion as it seeks to cut meat consumption in half by 2030, according to estimates in the Sustainalytics report.

Memphis Meats' Kay said the revolution for the beer market's micro-brewing phenomenon is a model that "at scale" can be patterned by meat labs. Memphis executives told the Wall Street Journal last year that the company, founded in 2015, can make a pound of meat for less than \$2,400 start to finish, down from \$18,000 a year earlier.

"Our goal is not to put family farmers out of business," Kay said Wednesday, "but we see a real role in feeding the world."

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## 2. [Meat products bolster U.S. trade picture](#) - Meatingplace

U.S. agricultural exports overall will be \$139.5 billion for the federal fiscal year 2018, down \$500 million from the forecast in November due to a 6 percent decline in oilseed and product exports that is only partially offset by increases in livestock, cotton and grain exports, USDA's Economic Research Service and Foreign Agricultural Service agencies projected.

The forecast for livestock, poultry and dairy exports in aggregate was raised \$800 million to \$30.5 billion, led by higher forecasts for beef and pork products.

Meanwhile, U.S. agricultural imports for fiscal 2018 were forecast at \$118.5 billion, up \$1.5 billion from the November forecast. Most major product groups are forecast higher. The U.S. agricultural trade surplus is down \$2.0 billion to \$21.0 billion.

The global economy is looking good in both developed and developing countries, the report said. ERS and FAS calculate world GDP growth of 2.0 percent in 2017, and expect 2.2 percent growth in 2018 — "the fastest growth in global income since the post-financial-crisis rebound in 2010." Also, after two years at less than 2 percent, global trade volume, which grew 6.1 percent in 2017, is expected to increase 5.0 percent in 2018.

### Weaker dollar

The U.S. dollar weakened against the currencies of many key trading partners in 2017 and is expected to generally trend weaker into 2018, the report said. The trend is mostly the result of improved economic health in



other countries, which has allowed their currencies to regain some of the value lost since 2014. The Eurozone experienced its strongest economic growth in a decade in 2017, and consumer and business sentiment suggests this strength will carry over into 2018. China's 2017 growth accelerated over the previous year for the first time since 2010, and India's per capita GDP growth is expected to outpace China's in 2018.

Beef, pork

Among commodity exports, beef exports are forecast to increase by \$400 million, to \$6.7 billion, on both higher volumes and stronger prices. Pork is forecast up \$300 million, to \$5.5 billion, on strong global demand in key markets and slightly higher prices. Variety meats are forecast \$100 million higher at \$1.9 billion on robust demand and stronger prices. Forecasts for total poultry were unchanged.

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### 3. [Trump Administration Discusses Food-Box Plan With Grocers](#) - Bloomberg

The Agriculture Department has begun talking with grocery retailers about their potential role in a proposal to replace some food-stamp allocations with prepackaged boxes of groceries, Secretary Sonny Perdue said.

Grocers are already adding services such as food delivery that the so-called Harvest Box would require, Perdue told reporters Thursday in Washington after speaking at the department's annual conference on the outlook for U.S. agriculture.

The proposal, included in President Donald Trump's fiscal 2019 budget, would represent one of the biggest shake-ups in the history of the Supplemental Nutrition Assistance Program, commonly known as food stamps.

"We have some ideas on how our retailer community could participate," Perdue said. "Rather than dismiss this out of hand, let's discuss how it can be improved."

Perdue didn't name any specific grocers contacted by USDA. Shares of retailers that cater to lower-income Americans, including Dollar Tree Inc. and Dollar General Corp., dropped after the plan was unveiled, Feb. 12. The Harvest Box proposal would slash cash payments and substitute them with packages of food such as cereal, pasta, canned fruit and meat.

The administration estimates substituting food deliveries for food assistance payments would save \$129 billion over a decade. Still, it would pose logistical challenges as a distribution system set up, a problem Perdue acknowledged. The plan has also been criticized as stigmatizing the poor and returning U.S. social-service policies to Great Depression food-handout programs.

Lawmakers have been lukewarm to the idea, which conflicts with plans drawn up for a new farm bill due by Sept. 30. Perdue said he's been talking to House Agriculture Committee Chairman Michael Conaway, a Texas Republican, about the idea, potentially as a pilot program introduced on a limited basis.

Lawmakers will give the proposal "due diligence," said committee spokeswoman Rachel Millard. Conaway "really respects the secretary and believes at some level we need to consider this option and see if it makes sense," she said.

The food stamp program served 42.2 million people and 20.9 million households on average during the 2017 fiscal year. SNAP assistance cost \$68.1 billion in 2017, with \$63.7 billion given out as benefits.

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#### 4. [USDA secretary wants separate immigration program for agricultural workers](#) - Reuters

U.S. Secretary of Agriculture Sonny Perdue said on Thursday the government wants a separate immigration program for agricultural workers.

Speaking on the first day of the annual USDA Agricultural Outlook Forum, he said agriculture is caught in the crossfire of the immigration debate. "The people who come to America to work on farms and ranches are not taking jobs from Americans," Perdue said. "They are not the ones putting a burden on criminal justice system or welfare system."

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#### 5. [Big beef looms over definition of lab-grown meat](#) - New Atlas

In a sign that lab-grown meat is getting closer to finally reaching the market and significantly disrupting traditional meat-producing industries, the US Cattlemen's Association (USCA) is petitioning the United States Department of Agriculture (USDA) to restrict the definition of "beef" and "meat" exclusively to products born, raised and slaughtered in a traditional manner. The petition raises the question: Can lab-grown meat still be called meat?

Lab-grown meat has rapidly moved closer and closer to our market shelves over recent years. Promising tech start-ups such as Memphis Meats are effectively growing edible meat in laboratory conditions from animal cells. Despite refining the process to impressively resemble the look and taste of traditional meat, the technique has been infamously time-consuming and prohibitively expensive, keeping it from being easily scaled up to industrial levels.

Memphis Meats suggests its products will reach the general public by 2021, but another startup called Just (formerly Hampton Creek) is ambitiously planning its first lab-grown meat product to hit the market by the end of 2018. Unsurprisingly, traditional meat producers are viewing the looming disruption as a major threat, and are now officially drawing a line in the sand.

The petition to the USDA is relatively broad, encompassing both lab-grown meat derived from animal cells, and meat-like products produced from plant proteins. The claim covers, not only the label "beef" but also the more general term of "meat". The petition states:

"The "beef" and "meat" labels should inform consumers that the products are from animals harvested in the traditional manner, as opposed to derived from alternative proteins or artificially grown in laboratories. As such, the definitions of "beef" and "meat" should be limited to animals born, raised, and processed in the traditional manner, regardless of the country of origin. Synthetic products and products grown in labs from animal cells should thus not qualify to be labeled as "beef" or as "meat."

The proposition raises a compelling question: What is meat?

The petition does accept that, "sources generally define 'meat' as animal tissue or flesh used as food," but it adamantly insists that lab-grown animal tissue should not be labeled as "meat" and that the definition needs to be, "limited to the tissue or flesh of animals that have been harvested in the traditional manner."

Ultimately this is a philosophical argument. There is no fundamental difference between a steak grown in a lab and a steak harvested from a slaughtered animal. Both are composed of animal cells, and from a molecular perspective are indistinguishable. But once these lab-grown products hit the market they will certainly need to be labelled in some way to identify them as different from traditional "meat" products.

As these lab-grown meat products become cheaper and get closer to our

market shelves, you can be sure this won't be the last you hear of this debate. With large, traditional industries under threat from entirely new technologies of production, the question over what can be called "meat" will be hotly debated.

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6. [USDA projects climbing meat production, falling prices](#) - Feedstuffs

Demand for U.S. livestock and dairy products looks to remain strong, although production continues to outpace the need. Total crop acres are also expected to remain flat and continue to be dependent on trade markets, particularly China and North American Trade Agreement (NAFTA) partners Canada and Mexico, according to the latest outlook U.S. Department of Agriculture chief economist Robert Johansson provided at this year's USDA Agricultural Outlook Forum held Feb. 22-23 in Arlington, Va.

"The outlook for livestock and dairy is for continued record total meat and dairy production," Johansson said. Low and stable feed costs over the past few years and projected going forward support the outlook.

USDA projects that total meat and poultry production will hit nearly 104 billion lb. in 2018, as production of beef, pork and broilers all increase. Milk production is also projected to be at a record 218.7 billion lb. in 2018 with modest herd expansion and stronger growth in milk per cow.

"That expansion in meat production for 2018 is expected to depress prices continuing the decline from the highs we saw in 2014," Johansson said.

Fed steer prices are projected to fall to \$119.25/cwt., down about 2% as domestic demand limits losses on larger supplies. Hog prices are expected to decline to \$48/cwt., down nearly 5% from last year.

Milk prices will continue to come under pressure, with the all-milk price expected to fall 9% this year, driven lower by product prices. "With relatively flat feed prices and a decline in milk prices, margins are under greater pressure this year," he added.

Johansson said foreign markets have become increasingly important for the beef, pork and poultry sectors and are expected to grow over time. Exports of pork are expected to rise by 18% over the next 10 years and by 14% for poultry.

Growing demand

Johansson said one factor that could turn the tide of bleak agricultural conditions is improved global economic growth, which would draw more households into the middle class and boost overall food demand.

As middle-income households increase in emerging markets and developing countries, demand is expected to increase for U.S. products, especially livestock and dairy products and the grains and oilseeds that make up livestock feed and processed products.

Johansson said the number of middle-class households in China will nearly double, approaching 370 million households by 2026. The number of middle-class households in India is expected to nearly triple by 2026.

In his keynote speech, Secretary of Agriculture Sonny Perdue said trade remains critical for U.S. agriculture. He shared that middle-income households in China are expected to double in the next 10 years to 370 million – more than the total U.S. population. Likewise, India is expected to see middle-income numbers triple.

USDA trade undersecretary Ted McKinney is currently in India on a second trade mission to the region. When asked why USDA has focused on India, which currently does not export much from the U.S., Perdue said he believes that the U.S. can be a legitimate supplier of India's nutritional needs. He noted that India's protectionist views need addressed.

#### Grain markets

The combination of rising stocks and continuing large global production have limited upside potential for grain and oilseed prices; however, USDA expects increase in demand relative to production in the upcoming year.

With commodity prices flat to rising slightly from last year, Johansson said USDA expects acreage to respond similarly. For corn and soybeans, current price expectations and rotational constraints again push the combined area to 180 million acres, which will be evenly split between the two crops at 90 million acres.

Soybean prices, forecasted at \$9.25/bu., are expected to be down fractionally next year as large U.S. stocks hold prices in check. Driven by record yields in 2017, corn prices ended the year lower at \$3.30/bu. "Looking forward, we expect a small rebound in prices and a return to trend yields," he said.

"We expect that the continued expansion of trade in soybeans will

continue to put pressure on corn but more likely other crop area in the future,” Johansson said. USDA’s long-term baseline suggests that soybean area will match or exceed corn area for much of the next decade, supported by import demand from China.

Wheat area is expected to reverse a four-year trend and expand by 1.1% to a projected 46.5 million acres. Cotton acres are also projected to be 5.6% higher at 13.3 million acres.

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#### 7. [Tyson Foods to Launch Plant-Based and Food Waste-Based Product Lines](#) - Organic Authority

Tyson Foods, the world’s second-largest processor and marketer of chicken, beef, and pork products says it’s launching a plant-based protein line called Green Street.

“Tyson Foods is transforming from a company with a strong heritage in chicken to a modern food company that is challenging the industry status quo,” President and Chief Executive Officer Tom Hayes said at a recent conference. “Consumers expect more from food companies today, and we’re up for the challenge. We’re combining our size and scale with agility to make food people want to eat. That’s driving our business and helping us deliver top-tier returns for shareholders.”

The company says it’s “changing the game with new growth models,” which includes the Green Street launch. The new products address two consumer needs: ready-to-eat meals and a demand for plant-based protein. Green Street will be “grab-and-go bowl that are 100% plant-based,” the company says.

The company made headlines in recent years with investments in plant-based startup Beyond Meat and most recently into Memphis Meats, a clean meat company that relies on cellular agriculture to “grow” meat from animal cells without the need for raising live animals.

Through its Tyson Ventures, the company says it’s backing “talented entrepreneurs who are pioneering breakthroughs in food and food-focused technologies.” Its initial investments included Beyond Meat, Memphis Meats, and Tovala, a smart oven that “cooks pre-prepared meals with the scan of a code and the touch of a button.”

The company also recently launched the “Tyson Innovation Lab,” which is about “exploring new approaches to accelerate the pace of innovation,” the company says. “The lab brings together a lean team of designers,

chefs, scientists and supply chain experts in a dedicated space at the company's Chicago office and gives them six months to go from an idea to an in-market solution." Its first mission is food waste, Tyson says. "For the first product launch, they are finding opportunity in wasted food. Utilizing what goes unused in the food supply chain as ingredients, they are developing a line of protein snacks branded 'YAPPAH'."

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8. [California agriculture sees 'chilling, damaging effect' from wave of immigration audits](#) - CNBC

- More agri-business employers in California's ag-dependent Central Valley are getting served with immigration audits.
- One agriculture executive said the audits are causing "a chilling, damaging effect."
- The crackdown on ag-related employers follows immigration sweeps in other parts of the state, including employers in the L.A. and San Francisco areas.
- But President Donald Trump said Thursday he's now considering pulling federal immigration enforcement agents from California.

California's agriculture industry already faces a farm labor shortage, but now it's facing added pressure due to a wave of employee audits ordered for large farms throughout the state's Central Valley.

Up to 10 agribusiness employers in the state's San Joaquin Valley were recently contacted by the U.S. Immigration and Customs Enforcement about notices of inspection, said Manuel Cunha, president of the Nisei Farmers League, a Fresno-based agriculture advocacy group.

"These ICE audits have had nothing but a chilling, damaging effect," Cunha said Thursday.

Some have suggested that California businesses are being unfairly targeted in the Trump administration's immigration enforcement efforts due to the state's controversial "sanctuary law," which bars local authorities from asking about the immigration status of people during routine interactions.

However, President Donald Trump said Thursday he's considering pulling federal immigration enforcement agents from California. He made those comments after lashing out at California's "sanctuary" state status and "protection of these horrible criminals."

"We're getting no help from the state of California," Trump said. "Frankly,

if I wanted to pull our people from California, you would have a crime mess like you've never seen. All I'd have to do is say, 'ICE and Border Patrol, let California alone.' You'd be inundated, you would see crime like nobody's ever seen crime in this country."

The latest ICE audits on agribusinesses involved packing and processing houses as well as some farms being asked to show their hiring records.

"There were a couple of agricultural facilities that did have the audits that were taking place in the last couple of weeks," said Ryan Jacobsen, CEO of the Fresno County Farm Bureau. "It's been a couple of years since we saw it to the extent that we did."

Jacobsen said last year was "an extraordinarily tight year" in terms of farm labor supply in the Central Valley and arguably the tightest the region has seen in a decade. "The assumption is that this will continue into this year, but we're on the early cusp on when a lot of the [agricultural] activity really gets going in the valley."

The federal immigration audits in the state's top agricultural region follow last week's announcement that ICE agents conducted a week-long crackdown in Southern California, arresting 212 undocumented immigrants and serving notices of inspection to 122 businesses. Also, in January dozens of other businesses in Northern California were audited.

ICE declined to comment for this story.

Federal officials have previously said the focus of the employee audits nationwide is on a wide variety of industries, because "all businesses regardless of industry or size, are expected to comply with the law."

Meantime, the state also passed an Immigrant Worker Protection Act that went into effect in January that bars employers from voluntarily giving employee information to federal authorities. It also requires employers to notify all employees of inspections of their employment records by U.S. immigration agencies within 72 hours of receiving notice of the federal audit.

California's attorney general, Xavier Becerra, warned in January that businesses could face a fine of \$10,000 if they violated the new law. According to Cunha, the state attorney general's threat to go after companies has made the situation tougher for employers and the requirement of posting the letter of a pending audit has scared farm workers.

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9. [New composting method may reduce antibiotic resistance spread](#) -  
Meatingplace

A new thermal composting method that eliminates antibiotic-resistant bacteria from organic animal waste used to make fertilizers could help reduce the spread of antibiotic-resistant genes in humans, according to a new University of York study.

The study, conducted in collaboration with scientists from Fujian Agriculture and Forestry University in China, shows that hyperthermophilic composting, an industrial scale process that heats the compost mixture internally to a temperature of 90°C, kills the antibiotic-resistant bacteria that can have a negative impact on human health. The researchers conclude that the process is scalable to large industrial compost volumes and costs are comparable to traditional composting methods.

Read the study online in the [Journal of Environmental Science and Technology](#).

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10. [Industry affirms safety of US meat, poultry](#) – Meat and Poultry

Stakeholders stepped up to defend the safety of US meat and poultry products after a report critical of the hygiene in US meat plants was published in the United Kingdom.

A joint report by the non-profit Bureau of Investigative Journalism and The Guardian newspaper raised concerns that “...dirty US meat could flood into Britain...” as a result of a post-Brexit US-UK trade agreement that weakens food safety standards in the UK. The report, according to the news organizations, is based on unpublished reports by the Food Safety and Inspection Service (FSIS) of the US Dept. of Agriculture. The article said more than 15,000 non-compliance violations at 13 large red meat and poultry plants were reported between 2015 and 2017.

Barry Carpenter, president and CEO of the North American Meat Institute (NAMI), said meat processing plants are regulated and inspected intensively by federal inspectors. Violations are well-documented when they occur.

“The Guardian cherry-picks quotes that sound the most compelling while failing to compare and quote similar documents generated by UK’s own Food Standards Agency,” Carpenter said. “The fact the incidents described

by The Guardian were found by government inspectors and that the products involved never entered commerce shows that the US inspection system is working effectively.”

The report also said that separate government documents revealed hygiene “failings” between 2014 and 2016 at 24 poultry plants operated by Greeley, Colorado-based Pilgrim’s Pride Corp., which is owned by JBS S.A.

In a statement, Al Almanza, JBS Global Head of Food Safety and Quality Assurance, attempted provide context for the non-compliance citations used in the report. Almanza joined JBS after serving as Deputy Under Secretary for Food Safety, USDA, and Administrator of FSIS.

“The US meat and poultry sector is one of the most highly regulated industries in America. Non-compliance reports are issued by USDA inspection personnel to document when an establishment has not met a specific regulatory requirement,” Almanza said. “However, the vast majority of non-compliance issues are addressed immediately and have no impact on food safety.

“All of the documented incidents regarding JBS and Pilgrim’s were immediately addressed by our facilities,” he noted. “None of these incidents put anyone at risk or resulted in any adulterated product released into commerce. Food safety is achieved by implementing processes that consistently detect and correct issues before products are released into commerce. Our team at JBS and Pilgrim’s is committed to the highest food safety standards and we partner with USDA each and every day to ensure that consumers can enjoy safe and quality products with confidence.”

The report went on to compare trends in foodborne illnesses in the US and UK. But, it is unclear from the report if the illnesses in the UK were linked to US meat and poultry products. Additionally, the report gave graphic details of violations, but few details about possible outcomes or remedies implemented by the plants. It also is unclear whether the reporters visited the facilities cited in the documents used to generate the report.

“The US meat and poultry production and inspection system is well regarded for its efficiency and ability to produce a meat and poultry supply that is among the safest, and certainly the most affordable in the world,” Carpenter added. “The Guardian claimed that an estimated 15 percent of Americans experience a foodborne illness each year. However, The Guardian failed to note that the number of laboratory confirmed

cases of Campylobacter, Salmonella, E. coli O157:H7 and Listeria monocytogenes are far higher in the United Kingdom than in the United States, and the US has a population that is five times as large as the UK population.”

Concerns that a bilateral trade agreement with the US would lower food safety standards in the UK emerged in 2017 as government officials from both countries began talks on a potential post-Brexit free trade agreement. At the time, food safety advocates abroad were concerned about chicken rinsed in chlorine, which is a food safety intervention that is legal in the US, but not the European Union.

“We believe food safety and trade agreements should be based on sound science, not political science or fear mongering,” said Tom Super of the National Chicken Council in Washington, D.C. “US broiler companies have invested tens of millions of dollars in technology and other scientifically validated measures to enhance the safety profile of chicken products. Continuous inspection and testing by FSIS and the industry has demonstrated the long-term success of these interventions in providing a safe, wholesome and affordable protein for consumers, both here at home and in more than 100 countries around the world.”

The “dirty meat” report also stated that chicken with Salmonella can be sold in the US. The federal government has not classified Salmonella as an adulterant like E. coli O157:H7.

“It is ironic that The Guardian criticized the fact that Salmonella is not classified as an adulterant on raw meat and poultry in the US — but omit that that it’s not considered an adulterant in the United Kingdom either,” Carpenter noted. “If The Guardian wants to oppose meat and poultry trade with the US, they should just be honest about it. That facts show that the US and the UK produce meat and poultry that meet high food safety standards and this should encourage trade between our nations and reassure our citizens.”

Super explained that “Even with very low levels of Salmonella, there is still the possibility of illness if a raw product is improperly handled or cooked. But any and all bacteria potentially found on raw chicken are fully destroyed by handling the product properly and cooking it to an internal temperature of 165°F.”

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11. [Trump and Canada May Chill a Nafta Deal](#) - Wall Street Journal

If there were ever a no-brainer in international trade, it would be free

trade between the U.S. and Canada. The two countries are the closest of friends and allies, and their economies are so tightly linked that trade barriers with Canada could put eight million Americans out of work. And if you're the sort who worries about trade deficits, the U.S. runs a \$12.5 billion surplus with Canada in goods and services. Despite these benefits, however, the current renegotiation of the North American Free Trade Agreement may result in a breakup between the two trading partners.

Part of the blame is owed a White House that is reflexively suspicious of international trade. At a small White House meeting on trade I attended, President Trump spent five minutes critiquing China before launching into a 20-minute attack on Canadian trade policies. It was "Blame Canada," right out of "South Park."

Another problem is Americans' utter lack of interest in the Great White North. One poll showed that 92% of Americans expressed a favorable view of Canada when prompted. But Canada doesn't much impinge on American consciousness. It's what Poland was in the Alfred Jarry play "Ubu Roi": "The action takes place in Poland, that is to say nowhere."

The biggest obstacle to renegotiating Nafta, however, comes from Canada—a combination of sins of commission and of omission.

The sin of commission is Canada's attempt to force political correctness into the trade deal by requesting new chapters on gender and indigenous groups. With the move, Prime Minister Justin Trudeau intends to signal his antagonism toward the famously politically incorrect Mr. Trump. Provoking Mr. Trump may be a popular move among Canadian voters, who have an increasingly unfavorable view of the U.S. But the distraction caused by the dispute between the two leaders could threaten the broader negotiation.

The rising tensions between the U.S. and Canada represent a drastically different starting point for bilateral negotiations from the climate in recent years. It used to be a tradition for newly elected American presidents to select Canada for their first diplomatic visit. It is already too late for Mr. Trump to do the same, and I would be surprised to see him visit Ottawa at any point in his remaining term. What would he gain other than public abuse?

In President Obama's last visit to Canada's House of Commons, in June 2016, members of Parliament banged their desks and shouted, "Four More Years!" It was a lovefest. As deliriously joyful as that was, a visit by Mr. Trump would be the opposite: a hatefest.

Mr. Trudeau's sins of omission present an even greater concern. The Canadian government hasn't done enough to sell the deal. It could have promoted the importance of Nafta with a full-frontal campaign: meeting with editorial boards to massage the media, taking out full-page ads in major newspapers, and sponsoring conferences at which academics would discuss how many American jobs would disappear if the deal were abandoned.

Most important, the Canadians could have explained the need for a dispute-resolution mechanism in which a panel of experts would be empowered to rule on the tricks the two countries allege each other to have played in their trade dealings. This provision is a must-have for Canadians, but they've not bothered to make the case.

Those who prioritize American sovereignty—who think that the U.S. should never subject itself to binding binational arbitration—might think twice if they recall how we've given cause for other countries to distrust us. Consider Canada's Loewen Group, a funeral conglomerate that was taken to the cleaners in 1995 by Mississippi trial lawyers. A contract claim against Loewen that might have amounted to a few million dollars ballooned to \$500 million after a jury, wrongly permitted to hear biasing evidence, awarded damages to the claimant for emotional distress. The decision was reviewed by a Nafta-chartered panel including a member of the British House of Lords and a former chief justice of Australia, who concluded that the case had been an example of Third World justice. But in the end, the American member of the panel persuaded his peers to uphold the award on technical grounds.

Now here's what's really surprising. In the midst of the Nafta renegotiation, Canada has managed to broker a trade deal with the European Union and join the Trans-Pacific Partnership. One wonders why the Trudeau government so avidly pursues trade deals with everyone except the U.S. Could the prime minister's ingratiating manner mask a deeper disdain for his country's greatest trading partner?

If it all falls apart and the U.S. is seen as hostile to free trade, the big winner will be China, with its eager search for new markets for its goods.

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**From:** [Carrie Webster](#)  
**To:** [Cindy Cunningham](#); [Mike King](#); [Kevin Waetke](#)  
**Subject:** FW: Interesting Topic  
**Date:** Wednesday, January 31, 2018 4:14:00 PM

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Interesting article. Do we have any additional information on this?

**Carrie Webster**

Producer and State Communications Manager

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[cwebster@pork.org](mailto:cwebster@pork.org)

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**From:** Amy Bradford [mailto:[abradford@pennag.com](mailto:abradford@pennag.com)]

**Sent:** Tuesday, January 30, 2018 8:45 AM

**To:** Carrie Webster <[cwebster@pork.org](mailto:cwebster@pork.org)>

**Subject:** Interesting Topic

Carrie,

I did the survey for communicators/educators yesterday but just came across this article today about clean meats and producing meat without killing an animal. Might be an interesting topic for science/technology to cover. Where do we see this going in the pork world??

<https://www.globalmeatnews.com/Article/2018/01/30/Tyson-Foods-buys-second-clean-meat-start-up-stake>

Thank you.

-Amy

\*\*\*\*\*

Amy M. Bradford

Pennsylvania Pork Producers Council

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**From:** [Craig Morris](#)  
**To:** [Dave Pyburn](#)  
**Cc:** [Bill Even](#); [Kevin Waetke](#); [Bill Winkelman](#); [Jarrod Sutton](#)  
**Subject:** Nutrition Personalization  
**Date:** Monday, November 12, 2018 1:52:43 PM  
**Attachments:** [image002.png](#)  
[The Future of Food Day 2 Summary.docx](#)  
[The Future of Food Day 1 Summary.docx](#)

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Dave:

As we briefly discussed this morning, the FFT conference I attended in New York had an amazing panel dedicated to this whole idea of personalized nutrition being the future of nutrition guidance. Anyway, the panel was as follows and the bios of the speakers are at this link: <https://futurefoodtechnyc.com/speakers/>. Also, attached were my notes from the meeting and this session was on day 2.

Amazing changes on the horizon.

Cheers,  
Craig

## Personalization: Big Questions Concerning the Holy Grail of Optimal Nutrition

- As consumers are increasingly expecting a more sophisticated approach to personalization in food, how well developed is the integration and interpretation process of personalized nutrition?
- Where products are optimized for specific health benefits or nutritional requirements, how can food manufacturers deliver personalization to the masses?
- Does the average consumer see sufficient value in personalized nutrition in its current state? What technical and implementation challenges still exist? Who can provide trusted and actionable solutions? Can data help change behavior? How can consumers interpret and better understand the science?
- What are the principle drivers behind consumer adoption? What is the role of digitization and home tech? How are consumers using technology to drive health-related dietary decisions?
- How are tailored meal kits being used to deliver personalized nutrition solutions to consumers, and could this be the business model by which meal kit companies differentiate themselves to succeed?

*Session Chair:*

**Alexis Fox**, Chief Empowerment Officer, **LIGHTER**

*Speaker:*

**Kou Qin**, Vice President of BGI Health, **BELJING GENOMICS INSTITUTE**

**Mehdi Maghsoodnia**, CEO, **VITAGENE**

**Joshua Anthony**, Founding CSO, **HABIT**



**Ranjan Sinha**, CEO, 3TANDAI

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## **The Future of Food-Tech Conference**

### Innovation and Investment from Farm to Fork

#### Day 1 Summary

Overview: The Future of Food-Tech Conference's mission is to bring together active investors, entrepreneurs, and leading food brands to showcase innovation and solutions, share ideas and forge new partnerships and alliances which will shape the future of food. The event included a decidedly pro-plant based protein lifestyle with a heavy focus on start-up companies looking to accelerate their product development and commercialization. Throughout the day, four common themes emerged: (1) Meeting the demand for nutritious, affordable food for everyone is a motivating goal; (2) Creativity, investment and innovation in the food space is increasing faster than ever before; (3) Quality and taste are huge factors in building demand and trust; and (4) We need more protein and plant-based proteins are looking to fill that gap. These themes are discussed in greater detail below, as well as quotes from notable speakers are included for reference.

1. Meeting the demand for nutritious, affordable food for everyone is a motivating goal.
  - The day began with opening comments from David Belt of New Lab, the venue where the event was held. David indicated he switched to a plant-based diet and "feels great" and they are now focused on companies that fit that model.
    - o Note—the space where the event is held is an innovation accelerator where start-ups can work in a shared space and is incredibly interesting and feels very creative.
  - In the keynote address, Susan Rockefeller helps direct the Rockefeller trust and partners with other like-minded philanthropic trusts to find ways to improve the world. One of her major priorities is directing their moneys to go in two different directions related to the food systems:
    - o The first is what they're doing with African Indians and Alaskan populations returning them to a simpler food system to help save the planet and human health.
    - o The second is more application to the developed world, investing in technologies that will save the planet and human health.
    - o "The overall objective is healthier foods and healthier soils," and she did mention a reduction in meat consumption.
  - Other panelists also mentioned bringing food to parts of the world that are hungry and food insecure, like Africa.
    - o Specifically, venture capitalists that see themselves as the second-wave of the food revolution (first was the philanthropists). Historically, a lot of the money has gone to marginally improving the lives of the 1%.
    - o Where they now see the higher margins in food tech is improving the lives of everyone on the planet, yielding more profit.
    - o Much of the venture capitalists are seeking out companies that want to do good, but also do money.
2. Creativity, Investment and Innovation in the Food space is increasing faster than ever before.

- Another common theme was how significantly the investment in plant-based and other alternative proteins is increasing.
- Specifically, during one panel on investment, panelists commented on the huge growth of the alternative proteins industry.
  - o Seth Bannon of Fifty Years said that in 2008 the investment in alternative proteins was 8 million dollars, and has grown to more than 1 billion in 2015. He commented that our “food system is broken.”
- Lots of investment is done for the purpose of doing good (which they see as plant based proteins) but also to make money.
  - o Seth Bannon: “If you don’t have a potential for a billion dollars in sales, we’re not going to pick you up.” They recognize that the work they’re doing is speculative, but they’re doing it for the money.
  - o Lots of the philanthropic money that has been used for in the academic world has been used in proof of concept, but they have not yet invested in the gaps to bring it to market or the scalability or the cost per unit. That’s what the money is currently flowing towards.
- Most money is coming through donor-advised funds, investor-advised funds, where investors want to feel good about where their money is going.
- NASDAQ has a sustainability tracking system, so they’re seeing a lot of inflow of money from NASDAQ companies.
- All of the venture capitalists were asked what they see as the biggest trends:
  - o Acceleration away from animal agriculture towards cell and plant-based meats;
  - o Food as a medicine individualized for each person;
  - o Non-alcoholic adult-based beverages.
- There’s not a lot of R&D in food right now so venture capital isn’t competing with private money or in-house R&D.
- Sir Kensington—developed a niche product in a noisy space, their tactic was to cut straight to the “why.”
  - o They did everything the opposite of Heinz. They got purchased by Unilever and pursuing a Certified B Corporation status that shows they’re good for the planet.
- There was a very interesting panel that discussed ingredients, where clean labels were the overarching issue.
  - o They see where clean labels are headed is towards designer foods, which would be the ultimate clean label.
  - o Designer foods directly address the mistrust with big food.
  - o A lot of discussions about how the regulatory agencies are not keeping up with food technology in labeling and GFI and other non-profits are filling this space. Overtly said that if you want to make it in this space you need to have GFI backing in order to protect you from regulators and consumer backlash.
  - o It was discussed how a number of foreign countries are ahead of the US in terms of progressiveness of labeling.
  - o Science of ingredients is very complicated, there was a long discussion about how the roll-out of GMOs was handled poorly but how the rollout of cellular and plant-

based meat was handled spectacularly even though they were both products of science.

- One was portrayed as a product of “big food” while the other has been portrayed as a miracle of science.
- Big future trends:
  - Continued evolution of food delivery;
  - Shelf-life extension technologies;
  - Stockholder growth/profit and loss driving the acquisitions that we see.
- What the major brands have learned is that it’s hard if not impossible to change your core brand because you mess with tradition—for example, some consumers want real cheese in their Cheeselts, so it’s easier to just buy your competition because they’re not really competing with your core customers.
  - Where we are seeing ingredient shifts in core brands is where it doesn’t affect the quality of the product, i.e. cage free eggs.
- No panels throughout the day saw the shift to plant-based diets as a fad and many commented on the “revolution” that’s taking place.
  - Panelist from Cargill said we’re in the 2<sup>nd</sup> inning of the transformation and wants to get to a place where food doesn’t need a label to distinguish whether it’s good or bad, it’s just food and should be enough.

### 3. Quality and taste are huge factors in building demand and trust.

- Amazingly interesting presentation by the Director of Food and Innovation for the Metro Grocery Store group in Europe. Sees the future of retailers as capitalizing on trust.
  - People trust the products they sell in their stores and are looking for demonstrations on how to use new products.
  - Are looking to see things in stores that have never been seen before (i.e. insect protein, cellular meat, vertical gardens, etc.).
- Hello Fresh—investing heavily in technologies to improve shelf life, they see themselves as more sustainable because of less food waste compared to retailers who tend to overstock, causing you to over-buy.
- 915 Labs—talked about clean label, shelf-stability solutions, a big factor in food waste and figure out ways to make products last longer without using things perceived as bad for you.
  - Plant-based foods are seen as more shelf-stable and healthier.
- There was a very interesting presentation by Beth Warren who is the Chief Commerce Officer for the Edlong Corporation.
  - She has done a lot of work with plant-based alternative to dairy companies.
  - She said that consumers are looking for “permissible indulgence” and think that plant-based proteins can deliver that better than animal proteins.
  - She talked a lot about how snakes are key and that all generations are snacking more than ever but it’s not just about bars or salty snacks—people are snacking throughout the day and this is a huge opportunity.
  - Consumers are looking for indulgent “mini meals” and want something that is filling from a satisfaction standpoint and that has an emotional component.

- She also discussed the idea of “treats” and how permissible indulgence is an emotional aspect, often what gets focused on is the nutritional aspect and the good for me aspect but forget about flavor and experience.
  - Consumers are looking for functionality built into flavor—need to think about flavors at the beginning of the process.
  - Also need to think about portability and it’s aspect of snacking. Customers are multitasking and the food industry overlooks convenience as we look to package these products.
  - Very interesting panel discussion featuring a representative from Cargill and from TGI Fridays.
    - The panelist from Fridays indicated that they have the Beyond Meat burger on their menu and that they’re also playing with a buffalo cauliflower and a flatbread that uses alternative meat. He indicated their consumers are demanding this.
4. We need more protein and plant-based proteins are looking to fill that gap.
- Interestingly, several panelists discussed how it is not an all or nothing proposition between meat and plant based alternatives.
    - Specifically, we’re going to have a protein shortage by 2040 and we can’t vilify meat because we’re going to need that protein.
    - Google panelist said that what people are seeking is a more sustainable, include food system that can be achieved through plant-based diets.
    - Millennials are 14% vegans and 55% are looking to reduce meat consumption—millennials were said to have been starting a multi-generational movement.
  - Cargill—threat to the food supply is differentiation, technologies like block chain and we’re in the middle of a transition away from commodities and this is a major disruption in the food chain. Supply chains are going to have challenges in sustainability.
    - Plant-based proteins ingredient mixes hurts their sustainability. They are chasing after ingredients that don’t exist on a global scale.
  - Panelist from google said that her diners are looking for “surprise and delight” and that it’s not an either/or proposition-but that consumers and chefs are looking for how to make different ingredients attractive and introduce consumers to new things.

Overall, I honestly feel that people with a lot of experience in organizing disruption are coming together in this effort and they see the food industry as ripe for disruption. Unfortunately, for us, the rallying cries around plant-based are louder than those of the pro-meat industry, and also unfortunately, we’re not investing in the R&D or innovation that these groups are.

There were two distinct groups in attendance: the zealots who hate meat and the venture capitalists who see money. The VCs scare me more, because they see our industry as one that is ripe for disruption and we are on the cusp of the for-profit phase which everyone said is the real money, and that’s when we’re going to have real competition. This food technology revolution is on the base of the for-profit phase which is where the real challenge to us is going to come from.

## **The Future of Food-Tech Conference**

Innovation and Investment from Farm to Fork

### Day 2 Summary

**Overview:** The Future of Food-Tech Conference's mission is to bring together active investors, entrepreneurs, and leading food brands to showcase innovation and solutions, share ideas and forge new partnerships and alliances which will shape the future of food. The event included a decidedly pro-plant based protein lifestyle with a heavy focus on start-up companies looking to accelerate their product development and commercialization. Below are notes on the various sessions from the second day of the conference.

**Fireside Chat:** Session Chair: Jonathan Tofel, Founder and CEO, MISSION FIELD

Speaker: Matthew McCarthy, Vice President of Foods, UNILEVER NORTH AMERICA; Joseph Gottschalk, VP North American Nutrition, Portfolio, Consumer engagement and Insights, PEPSICO

- It's a bad business decision in the food business to be entrepreneurial—it's cheaper to buy the winners than it is to pay for the losers. But, the culture in corporations like Unilever and PepsiCo almost breed those innovators out.
- That's why most of the entrepreneurs at the event are alumni of large corporations but they never really fit there because those systems don't reward the big thinkers. You tend to run those people out of the organization pretty early on.
- Big companies are going to buy into the start-up plant based companies to diversify and also to mitigate risk.

### **Personalization: Big Questions Concerning the Holy Grail of Optimal Nutrition**

Session Chair: Alexis Fox, Chief Empowerment Officer, LIGHTER

Speaker: Kou Qin, Vice President of BGI Health, BEIJING GENOMICS INSTITUTE; Mehdi Maghsoodnia, CEO, VITAGENE; Joshua Anthony, Founding CSO, HABIT; Ranjan Sinha, CEO, 3TANDAI

- Convergence of health and nutrition
- The regulatory framework of health is very separate in the states and needs to be better aligned with health.
- Food guide pyramid and things like that were driven around generic messaging, whereas the health industry has been focusing a lot more on individual care.
- Lots of criticisms that one size fits all nutrition messaging—nano sensors are going to be everywhere like in toilets.
- There's going to be consumer platforms that personalize nutrition first, where you're going to see it happen first is in wealthy business men who are going to want an edge of people to make money, or in athletes where that 1% improvement can make an athlete better, and in disease like pre-diabetes and diabetes where healthcare is so expensive that individualized diet will become a pre-requisite.
- Group in China is tracking 6,000 people where they're monitoring everything they eat and they're activity to study them.

- DNA tests are really popular right now—the #2 selling gift for Christmas and was only #2 because you can't sell to people under 18.
- Broad support by the panel for the government getting out of the business of telling people what to eat.
- Recognized that the biggest factor of healthy eating is healthy food. Yesterday Google director talked about food options to eat more healthy; personalization—not really a food chain but a food web.
- The equipment is out there to monitor the data on how your body is responding to how you eat, it's not about getting it scaled down.
- Personalized nutrition is going to be the key to health going forward.

### **Technology Showcase: Early-Mid Stage Technology Entrepreneurs Present Seven Minute Snapshots of their Solutions**

- This was a session where a group of investors, or “sharks” heard proposals from start-up companies and decided whether or not to invest.
- Future Meat Technologies
  - o Looking for more investment, Tyson is currently a partner
  - o The conversion of beef meat, for every 100 grams of protein, you get 3 grams of consumable protein for a human. So, that's the metric that cellular meat is working on conversion.
  - o People are worried that “clean meat” will go the way of “clean technology”—he doesn't think that's going to happen because unlike a fixed asset looking to be exploited (i.e. oil) with this, it's all about scale.
  - o Future meat are engineers—look like espresso machine (called bio reactors) and you get a pod and it makes meat right there in front of you. That's their intent is in areas of the world where they don't have cold storage, we may be able to ship these pods to them and it gives them the protein they want with the mouthfeel of meat.
  - o Working on the cost of cellular meat:
    - Biology
    - Engineering
    - Equipment
  - o Right now it takes 1000 per kilogram, their goal is to get it down to \$10 per kilogram. They're looking for other companies like Memphis Meat to get cellular meat and then you can buy a bioreactor and make your own cellular meat.
  - o One of the venture capitalists pledged \$300,000 today.
- 3F BIO
  - o Looking at by 2050, the protein needs of the planet will double. If you look at current conversion, that will take 3 earths.
  - o Looking to tap into the biproducts of ethanol production to make a micro-protein “abunda.”
  - o Micro-protein that they make, because it's made off of biofuel waste, is incredibly cost effective.
  - o VCs pledged \$8 million dollars today.

- Nutrino
  - o Developed an app for your iPhone called FoodPrint, designed to make people with diabetes make informed choices.
  - o You take a picture of your food, the app grabs the picture, analyzes the photo and then you text your glucose, and because your Apple Watch is tracking your activity, it gives you immediate feedback on how your glucose levels are responding to certain foods.
  - o Gives you immediate feedback—this is the first iteration of this healthcare and nutrition personalization.
  - o Since taking pictures of your food is already so socially acceptable, this is just a logical extension of that.
- Gastrograph AI
  - o He's developed a computer system that takes demographic data and can determine which products that are about to be launched whether or not it will appeal to given demographics.
  - o With his company, you won't need to do taste panels because he's developed different perceptions to different profiles of foods and has created an algorithm that predicts how your product will appeal.
  - o Can also map your competitors' products and also do predictive analytics. Example; has watched the American population move from a sweet taste preference to a sour taste profile.
  - o VCs invested .5 million today.

### **A Deep Dive into Collaborative Innovation Models Accelerating Future Food**

- Was intended to give a light to the startups on working with the larger food companies.
- Window into the corporate culture comments from earlier about how it's hard for traditional food companies to invest in innovation and creation.
- Product development is not in a big corporation given the same investment because it's often such a low ROI.

### **Genetically Engineered: Addressing the Challenges Facing our Future Food System**

Jack Bobo, Vice President for Global Policy and Government Affairs, INTREXON CORPORATION BIOSCIENCES

*Speakers:* Vincent Sewalt, Senior Director, PS&R, DUPONT INDUSTRIAL BIOSCIENCES; Deepti A. Kulkarni, Associate, SIDLEY AUSTIN; Fayaz Khazi, CEO, ELO LIFE SYSTEMS

- Our regulatory framework is broken and disjointed
- Panel talked about how there's three agencies involved: FDA, USDA and EPA
- Crux of the discussion centered around regulatory framework, but it was definitely a pro-GMO panel
- 3 most wasted foods are bread, potatoes and apples, no coincidence that we're seeing a lot of investment there to reduce food waste.
- What this industry needs to understand is as plant-based proteins become more of a component of alternative protein, you're going to see GM move into those industries as well where we haven't seen much GM investment outside of the traditional commodities.



- As you keep spending money on alternative proteins (i.e. legumes) you're going to see GM investment there as well.

### **Alternative Proteins: Is the Hype Making an Impact?**

Andrew Ive, Managing Director, FOOD-X/SOSV

*Speakers:* Liz Specht, Senior Scientist, THE GOOD FOOD INSTITUTE; Tom Mastrobuoni, CFO, TYSON VENTURES; Eric Schulze, VP of Product and Regulation, MEMPHIS MEATS

- GFI is 2.5 years old, their purpose is to accelerate the alternative protein industry to eliminate animal agriculture.
- The moderator was from Food-X, they are an accelerator, they get thousands of application and they select just 2 to get their products to market.
- Were all asked what the most impressive innovation today
  - o Tyson jumped in first and said Memphis Meats—said they want to participate in the disruption and be aware of what's going on.
    - Also an investor in Future Meat (panelist from yesterday) and their sausages
    - CEO views Tyson as a modern food company, not a protein company. Sees the rest of the industry moving to their co-investors with a competitor, investing alongside competitors for the long-term strategy.
  - o Liz from GFI said that the most exciting thing for her is the scaling. Right now, she's delighted to see in the last 6 months the rapid scaling up of this technology. She's also excited by the diversification of protein sources, and referenced that that's going to be the limiting factor, making sure there's an adequate raw-materials supply.
    - Seeing a lot of investment in GM outside of soybeans. Lentils and legumes; yellow pea protein has increased the return from 18 to 34 percent. That works with the price point of raw materials.
    - Also doing really well getting plant based globular proteins to behave like fibular proteins which mimic meat better.
    - On the cellular side, what she's excited to see is specialization that we're starting to see that not everybody in the cellular space go from beginning to end and they can all get glued together into the best model.
    - The most impressive thing is the fear of FOMO—stunning on the scientific community how the prominent researchers in medical and food space are writing project proposals because everyone wants to be at the forefront of this space and have their name on journal articles.
  - o Memphis Meats—biggest thing that they see happen is these centers around the world pop up: Israel, Singapore and the Netherlands. Those are the three leaders in the cellular protein space.
    - **There's no formal center in the U.S. now. GFI—said that they've developed a short list of universities in the US that have strong food science and cell culture and they're out looking right now for donors on who wants to establish a cellular meat center here in the US.**
- Clean tech why it never made it—

- Tyson said that the science behind cell meat is better situated than clean tech because of the bonafide threat of a protein deficiency—the threat is more immediate.
- Memphis Meats asked what is greatest impediment to them being successful—he said first, most of their staff came out of biopharma, where people don't care about cost-drivers like the food industry. Need to remove cost from a food point, and that's going to be a priority when GFI gets a food center up and running is instilling efficiency into the cell protein industry.
- Tyson was asked are you going to start producing cellular meat. Said, 38% of our revenue comes from beef, can't say that we're going to have bioreactors in South Dakota, but we are looking at bioreactors in the developing world of Africa.
- GFI—asked about threat, she said that the “ick” factor has never materialized, nor has the fear of GMOs because in this context they're not viewed as beneficial to producers but rather consumers.
- Memphis Meats—would be a big mistake for a company like Tyson to go out and speak against a product in its ancient stage. Specifically referenced US Cattlemen and their petition.
- Panelists asked about announcement by FDA for public meeting:
  - GFI said they're really excited to engage regulators; concerned about someone in their industry going rogue and hurting the industry so they favor regulation.
- Memphis asked what keeps him up at night and it's the safety of their product, because they are only going to get one chance to launch this product and what keeps him up at night is someone getting sick.
- Lots of questions about why hasn't Tyson bought license—we're a food company, if it doesn't make food, that's not what we invest in. We don't buy things to produce things.

**From:** [Jill Resler](#)  
**To:** [Jill Resler](#)  
**Subject:** STRETCH Conference Details  
**Date:** Friday, February 2, 2018 12:49:25 PM  
**Attachments:** [STRETCH - 2018 Agenda.pdf](#)

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STRETCH Attendees:

The Minnesota Pork Board is excited to be hosting our first STRETCH Conference next week, February 7 and 8, 2018.

Attached is a complete agenda for the conference – please review and let me know if you have any questions.

Registration for the conference begins at 9:30 a.m. with the conference starting promptly at 10 a.m. on February 7. There will be a social hour and networking the evening of February 7, please plan to join us. On February 8 we will conclude by noon.

Address for the hotel: Courtyard by Marriott - 901 Raintree Rd, Mankato, MN 56001

If you indicated that you needed a hotel room, your reservation will be taken care of for you.

If you have additional questions in the interim, don't hesitate to reach out.

See you all next week.

Jill

*Jill Resler*

COO

Minnesota Pork Board

Minnesota Pork Producers Association

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Please conserve our natural resources, think twice before you print this e-mail.

# STRETCH

**Wednesday, February 7, 2018**

**9:30 a.m. Registration Begins**

**10:00 a.m. Welcome**

*Jill Resler, COO Minnesota Pork Board / Minnesota Pork Producers Association*

**10:10 a.m. Food Evolution Screening**

*Amidst a brutally polarized debate marked by passion, suspicion and confusion, FOOD EVOLUTION, by Academy Award®-nominated director Scott Hamilton Kennedy explores the controversy surrounding GMOs and food. Traveling from Hawaiian papaya groves, to banana farms in Uganda to the cornfields of Iowa, the film, narrated by esteemed science communicator Neil deGrasse Tyson, wrestles with the emotions and the science driving one of the most heated arguments of our time.*

**11:30 a.m. Lunch**

**Noon Prepared Comments from the Experts**

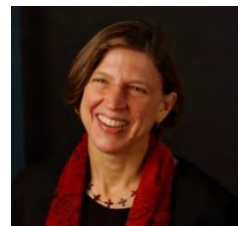
*Professor Mark Post – Cultured Meat*

Professor Post is a Dutch pharmacologist who is a Professor of Vascular Physiology at Maastricht University and Professor of Angiogenesis in Tissue Engineering at the Technical University of Eindhoven. In 2008 he was the first in the world to present proof of concept for cultured meat.



*Professor Pamela Ronald – 'Serving up science: plant genetics and the future of food'*

Professor Ronald is a plant pathologist and geneticist. She is a professor in the Genome Center and the Department of Plant Pathology and founding faculty director of the Institute for Food and Agricultural Literacy (IFAL), all at the University of California, Davis. Ronald co-authored the book *Tomorrow's Table: Organic Farming, Genetics and the Future of Food* with her husband, Raoul Adamchak.



*Eric E. Williams, Pharm.D., J.D. – Gene Editing*

Eric Williams is a partner in the Indianapolis office of Barnes & Thornburg LLP and a member of the firm's Intellectual Property Law Department. His practice is focused on preparing and prosecuting patent applications through the United States Patent and Trademark Office and counseling clients on the protection of intellectual property. He is a member of the firm's Food, Drug, and Device Law Practice Group, and in this regard has provided advice to multiple clients in the pharmaceutical industry and prepared patent term extension (PTE) applications for FDA-approved products.



<b>1:30 p.m.</b>	<b>Break</b>
<b>2:00 p.m.</b>	<b>Panel Discussion</b> <i>Moderator:</i> <i>Panelists:</i> <ul style="list-style-type: none"> <li>- <i>Professor Mark Post</i></li> <li>- <i>Professor Pamela Ronald</i></li> <li>- <i>Eric Williams</i></li> </ul>
<b>3:30 p.m.</b>	<b>Break</b>
<b>4:00 p.m.</b>	<b>12 + One Best Management Practices: Practices Anyone Could Do, But 98% Don't</b> <i>Dr. Danny Klinefelter</i>
<b>5:30 p.m.</b>	<b>Networking Social Hour</b>

**Thursday, February 8, 2018**

<b>7:00 – 8:00 a.m.</b>	<b>Breakfast</b>
<b>8:00 a.m.</b>	<b>Nathan Jamail</b>

Nathan is the author of three bestselling books and has spent the last two decades helping and coaching leaders and organizations on how to build winning cultures and helping great leaders become great coaches. Nathan understands the difficulties that many leaders face in balancing the job of running the business and developing employees. As a business leader in corporate America and a small business owner for over 20 years, Nathan has a great deal of personal experience in the role of a leader and a coach.

<b>Noon</b>	<b>Closing Comments</b>
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**From:** [Craig Morris](#)  
**To:** [Clay Eastwood](#)  
**Subject:** Fwd: Letter Final Program Planning Committee  
**Date:** Tuesday, October 2, 2018 10:20:36 AM  
**Attachments:** [ILC Planning Committee Letter 18.1001.pdf](#)  
[ATT00001.htm](#)  
[ILC 2019 Final Draft 9.11.18 \(1\).docx](#)  
[ATT00002.htm](#)

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FYI

Sent from my iPhone

Begin forwarded message:

**From:** "Fields,Michael J" <[fields@ufl.edu](mailto:fields@ufl.edu)>  
**Date:** October 2, 2018 at 9:16:54 AM EDT  
**To:** "Craig A. Morris Ph. D." <[cmorris@pork.org](mailto:cmorris@pork.org)>  
**Subject:** Fw: Letter Final Program Planning Committee

Oops had an old email address.

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**From:** Fields,Michael J  
**Sent:** Monday, October 1, 2018 4:03 PM  
**To:** David White; 'Mohammad Koohmaraie'; 'Trevor'; [tommy.wheeler@ars.usda.gov](mailto:tommy.wheeler@ars.usda.gov); 'Keith'; 'Jill Harvie'; 'Paul'; [jessica.finck@merck.com](mailto:jessica.finck@merck.com); [justin.ransom@tyson.com](mailto:justin.ransom@tyson.com); 'Jason Strong'; 'Mitchell B'; 'Tiffany Lee'; (b) (6); 'Craig - AMS'; 'Chris Boleman'; 'Nelson'; 'H Russell'; 'James'; (b) (6) [Brett@lonestar-disposal.com](mailto:Brett@lonestar-disposal.com)  
**Subject:** Letter Final Program Planning Committee

Colleagues

The 2019 ILC program has been completed in all aspects. Please open the letter of thanks and summary as well as the final program. Now to roll up our sleeves and spread the word on the outstanding program that you folks made possible.

Have a glorious fall!

michael j fields

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International Stockmen's Educational Foundation • c/o International Committee, Houston Livestock  
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October 1, 2018

## **MEMORANDUM**

To: 2019 ILC Planning Committee

Mohammad Koohmaraie – IEH Laboratories  
Trevor Amen – Cobank  
Tommy Wheeler – US Meat Animal Research Center  
Keith Belk – Colorado State University  
Jill Harvey – Canadian Cattlemen's Association  
Paul Clayton – US Meat Export Federation  
Jessica Finck – Merck, Inc  
Justin Ransom – Tyson  
Jason Strong – Smithfield Cattle Co., Australia  
Mitch Bowling – Abbott Nutrition Supply Chain  
Tiffany Lee – North American Meat Institute  
Penny Riggs - TAMU  
Craig Morris – National Pork Board  
Chris Boleman – Houston Livestock Show & Rodeo  
Bret Sarver – Houston Livestock Show & Rodeo  
Nelson Huerta – DVM PhD Consultant Texas Tech University  
Russell Cross - TAMU  
Ex-Officio: Bo Reagan, David Waggoner, David White

## **Subject: Completion of the 2019 ILC Program**

Dear Committee Members:

You will find attached the completed program for the upcoming ILC scheduled for February 27 and 28, 2019. I want to thank each of you for your input in identifying another successful lineup of topics and speakers for the important issues the industry continues to face.

Letters of invitation have been mailed to each participant and confirmation of attendance has been received. Michael Uetz, Midan Marketing will deliver the keynote address around the topic of consumer demands and disruptive trends leading into the future. His presentation opens the program's theme, **“Change is Here! Can the Livestock and Meat Industry Adapt or Influence?”**



South Korea is one of the hottest exports markets for US beef. JiHae Yang will share the road map of how this market recovered after the BSE closure in face of understandable resistance from domestic beef producers. Furthermore she will bring with her the consumer's application of technology to address their demand for beef. This includes a futuristic model in beef purchases that reach a broad consumer base.

Quality of US beef is one of the primary drivers of market demand in the field of competing proteins. Russell Cross will address the negative impact large carcasses/cattle can have on consumer demand via marketing and consumer/retail preparation issues that can lead to a less than desirable eating experience.

One of the most futuristic and greatest threats to the meats industry is the alternative proteins paraded as meat. Justin Ransom from Tyson Foods that has invested in the technology of generating alternative proteins is in an excellent position to bring us up to date on the thinking of one of the world's largest meat companies in addressing the global demand for meat given that in just 12 years, 2030, there will be ~ 700 million more people moving into the middle class that will demand more meat to feed their families

The first day ends with the speaker's panel moderated by Tommy Wheeler of USDA. With international representation the panel will address previously mentioned new technologies and the **Industries Adaption to Disruptive Change**.

The second day of the Congress will be led by the keynote given by Troy Setter on the **Global Economy of Trade and its Impact on Drivers of Demand for Meat**. Troy comes to us from Australia and is CEO of one of the world's largest cattle companies, Consolidated Pastoral. This will be a timely opening regarding the current status of meat trade and the impact of the trade disputes going forward into 2019. As an added bonus Troy is a former ILC scholar and looks forward to a reunion with the Congress.

Trade of beef into China is problematic. Keith Belk will address the many issues the industry will face as we take an optimistic view of resolving some of the most vexing issues of selling into the trade winds of China.

Don Close of Rabo AgriFinance will deliver an assessment of the economic health of the meat industry. Currently the health of the industry is strong with both exports and domestic demand on an upward march. Are there dark clouds in the future? If you follow Don's assessments from his perch at Rabobank you know we are in for a real treat of an out of the box thought provoking talk.

You will notice your individual suggestions on the lineup of both topics and speakers. In some cases, excellent suggestions were not incorporated. It was simply a cornucopia of talent and competing subject matter. Your input has not been forgotten for the planning file for the 2020 ILC is already being prepared. It is now time to let your friends and associates know about the 2019 ILC. Registration material will be on-line very soon.

Carry on!

Michael J. Fields, Chair  
2019 ILC Planning Committee  
[www.theisef.com](http://www.theisef.com)

**2019 INTERNATIONAL LIVESTOCK CONGRESS**  
**Change is Here! Can the Livestock and Meat Industry Adapt or Influence?**  
**Wednesday, February 27 – Thursday, February 28**

WEDNESDAY, FEBRUARY 27, 2019

**Can the Livestock Industry Adapt to Major Consumers Issues?**

**7:30 – 8:30 am                      Registration/Continental Breakfast**

**9:00 – 9:15 am                      Welcome**  
**James O. Reagan**, Ph.D., Zoetis, Chairman, International Stockmen's Educational Foundation  
**Joel Cowley**, President and CEO, Houston Livestock Show and Rodeo™  
**Bret Sarver**, Chairman, International Committee, Houston Livestock Show and Rodeo™

**9:15 – 9:30 am                      Moderator: Tommy Wheeler, Ph.D., ARS, USDA**

**9:30 – 10:30 am                      Tomorrow's Consumer and the Meat Industry: Disrupting Trends and the Future. Michael Uetz, Midan Marketing**  
Who are the meat consumers of the future? What will these consumers want and expect from the global meat industry in the coming years? Tomorrow's consumers face an expanding array of choices for 24-7 meat consumption including meal kit delivery, monthly subscription services, virtual artisanal butchers, vending machines, and the increasingly blurred lines between bricks and mortar supermarkets and restaurants. To take the current omni-channel disruption to another level, how does the meat industry amplify its message to successfully co-exist with plant-based and lab grown protein alternatives? Come discover consumer insights to help our industry establish a new collective paradigm to achieve future sales growth and evolve beyond "the way we've always done it".

**10:30 – 11:00 am                      Break/Networking**

**11:00 – 12:00 pm                      A Successful Rebuilding of US Beef product into South Korea. Ms. JiHae Yang, USEMF South Korea Director**  
When the US had it first case of BSE in 2003, many foreign markets closed to US beef imports. Over the next several years the US government and industry worked diligently to re-open these markets. South Korea was very unique as it was a large importer of US beef, but their government struggled in getting the market open until 2006 when there was an agreement to open the market for beef from cattle under thirty months of age. Surprisingly there was

significant consumer pushback when the market opened with hundreds of thousands of protestors in the streets of Seoul. Ms. JiHae Yang, USEMF South Korea Director, will share the initiatives that were implemented to recoup this very large and vital market to the US beef industry. She will show the marketing tactics utilized to regain market share captured by competitors and the tools that are currently being used to continue to grow this market in light of a very dynamic consumer. She will also share some of the cultural and current dynamics of the Korean market that make it one of the largest beef markets for the US. Some Korean consumer trends include: Koreans have widely embraced technology so internet and social media marketing is very large. Koreans are very large beef consumers but the way they obtain and prepare their beef products are very unique. Unlike the US, convenience stores are much more prevalent in Korea, hence they play a big role in providing beef items to consumers.

**12:00 – 1:30 pm**

**Lunch – Student and Alumni Recognition**

**1:30 – 1:40 pm**

**Moderator: Tiffany Lee, D.V.M, Ph.D., North American Meat Institute**

**1:40 - 2:40 pm**

**Is the Quality of Meat Acceptable to the Consumer? Will Large Carcasses Lead to Less Demand Due to Preparation and Quality Issues? Russell Cross, Ph.D., Professor, Texas A&M**

Worldwide consumer demand for meat is on an upward trajectory yet the meat industry is facing the loss of market that is the result of variability in the eating experience of beef that can impact demand. This variability is due to a number of factors but of the most recent concern is the increasing size of our cattle. Larger cattle leads to larger carcasses and larger portion size that is addressed by cutting steaks thinner. Furthermore, cuts of meat are being sold as steaks such as the inside round and the consumer is preparing those particular cuts like the traditional “steak”. This results in variability in tenderness that is compounded by the consumer wanting to spend less time in food preparation. Education of the consumer at point of sale on how to prepare different cuts of meat is one approach to addressing this problem. This is a problem that has to be addressed or demand for beef will decline.

**2:40 – 3:40 pm**

**Consumer Acceptance of Substituted Proteins from Vegetative or Cellular Sources: A Disruptive Threat to the Meat industry? Justin Ransom, Ph.D., Sustainable Food Strategy, Tyson Foods, Inc.**

One of the most futuristic and greatest disruptive threats to the meat industry is the alternative proteins paraded as meat and beef just as soy and almond milk has been costly to the dairy industry. None of these non-meat substitutes contain the intrinsic nutritive value of Animal Source Foods. Fake Meat/Clean Meat is the social media darling of those that would like to see the demise of the livestock industry. They are joined by activists from The Humane Society, PETA, Green Peace and others. These groups are infiltrating the businesses that affect agriculture particularly the animal sector. What do Cargill and Tyson see in the future with their investments in alternative proteins in their business model? Is there an accommodation that won't be a serious threat to the livestock industry

such as in labeling? How are the various segments of industry responding to the applied pressures, think Walmart, Target, Starbucks, Tyson, Cargill, etc.?

**3:40 – 4:00 pm**

**Break/Networking**

**4:00 – 5:00 pm**

**Panel Discussion – Industry Adaption to Disruptive Changes**

**Moderator: Tommy Wheeler, Ph.D., ARS, USDA**

This session opens with a five-minute overview followed by the four previous speakers giving their five-minute takeaway on the program presented. The outcome of this discussion will shape a consensus for the offensive game plan.

**6:00 – 9:00 pm**

**International Committee Reception - International Room (followed by Rodeo)**

**THURSDAY, FEBRUARY 28, 2019**

## **World Trade in Beef II – Very Dynamic**

**7:00 – 8:00 am**

**Continental Breakfast**

**8:00 – 8:15 am**

**Moderator: Paul Clayton, US Meat Export Federation**

This session will link previous day's discussion with the focus on world trade and why the nutritive value and taste of meat results in a high-demand product worldwide. Anticipate points that will be presented from the ensuing presentations.

**8:15 – 9:15 am**

**Keynote Address: Global Economy of Trade: Drivers of Demand for Meat. Troy Setter, Consolidated Pastoral Company Pty Ltd (CPC), Australia.**

Major beef exporting countries include the US, Australia, Canada, India and Brazil whereas increased demand for meat is projected for Southeast Asia and the Middle East. This increased demand comes from population growth with an increasing middle class demanding more meat in the diet. Global trade is complex with demand, protection of indigenous meat production, tariffs, politics, trade agreements, etc., affecting the worldwide movement of meat. How has this dynamic been affected with the upending of established trade agreements and thus realignment of markets such as seen with the explosive "Trade Wars" involving NAFTA, TTP, Europe and China?

**9:15 – 10:15 am**

**China's Growing Demand for Meat: Preparing the Producer and Purveyor for Exporting to China. Keith Belk, Ph.D., Ken & Myra Monfort Chair, Colorado State University.**

China is in the position as one of the globe's largest beef import markets, and certainly one of the most dynamic. Increase in income and wealth are transforming consumer demand profiles. US beef availability faces challenges including stiff competition from other global beef suppliers, continued preference for low prices over quality, and a rapidly shifting regulatory environment that makes China one of the most difficult import markets to penetrate and survive. The regulatory challenge is one of the most onerous to overcome with China's zero tolerance of the use of growth promotants. How can the producer prepare for

penetrating this maze of import restrictions? Will the US become a principal beef supplier to China, or will strict import conditions relegate it to niche status in the context of the ongoing “Trade Wars”?

**10:15 – 10:30 am**

**Break/Networking**

**10:30 – 11:30 am**

**What is the Economic Health of the Meat Industry: Are There Dark Clouds on the Horizon for the Future? Don Close, Rabo AgriFinance**

The meat industry health today is strong with exports on an upward march and domestic demand no longer declining but increasing at a respectable pace. Many onerous regulations and taxes have been reduced encouraging expansion and investment in the infrastructure. However, gazing into the future will there be an increasing strident activist movement concerning animal welfare and environmental sustainability coupled with meat substitutes that could stealthily undermine the health of the meat industry? Can the damage resulting from the “Trade Wars” be repaired in a timely fashion or is this going to a long slog to recover lost markets?

**11:30 - 12:00 pm**

**Congress Overview and Closing – Don Close, Rabo AgriFinance**

**12:00 pm**

**Adjourn**

**From:** [Jason Menke](#)  
**To:** [Jarrod Sutton](#); [Angie Krieger](#); [Neal Hull](#); [Tara Dugan](#); [Clay Eastwood](#); [Jim Murray](#); [Randall Newton](#); [Elaine Otte](#); [Neel Sahni](#); [Bart Goldberg](#); (b) (6)  
**Subject:** AMC talking points 2019  
**Date:** Friday, March 1, 2019 3:57:50 PM  
**Attachments:** [AMC talking points 2019.docx](#)  
[image001.png](#)

---

All –

For your in-flight reading, a few talking points to guide conversations you'll have with contacts at AMC. Please note the sensitivity of the last topic. A lot of the companies we work with have invested in this technology, so we want to make sure we're approaching this topic with that in mind.

I'm at your disposal during the entire duration of the conference. Mobile number is below.

**Jason Menke**  
**Director of Marketing Communications**  
**National Pork Board**  
**1776 NW 114<sup>th</sup> Street | Clive, IA 50325**  
**O: 515-223-2629 | C: (b) (6)**



*Please conserve our natural resources, think twice before you print this e-mail.*

**A focused Domestic Marketing team is promoting pork, developing new relationships, and driving to be a valued consultative partner.**

- Our January research report, *Dinner at Home in America*, defines nine consumer 'need states' at dinner time, and the role pork can play if merchandised and marketed effectively.
- We have repositioning the Pork Board as a trusted consultant, providing meat packers, retailers and foodservice partners with the latest fact-heavy, assumption-light market insights not found elsewhere.
- Unleashing the power of Google is a new way to market pork. We are moving away from traditional consumer ad buys and can reach targeted consumers with our message through search and YouTube creators.
- Grill and thermometer manufacturer outreach underscores end-point cooking temperature and we have carried this message into the stores through innovative promotions.

**Per Capita Consumption Nears Record Level** – USDA data reports continued growing consumption of meat. Of the more than 220 pounds of meat consumed last year, about one-fourth is pork.

**Our actions deliver a good return on investment (ROI).**

- The most recent cost-benefit study showed that U.S. pig farmers receive a 25:1 return on their Checkoff investment, the highest ROI of any checkoff in the agriculture industry.

**Our Future Success – Our We Care Sustainability Story**

- The U.S. pork industry's future success will require the industry continue to:
  - Grow demand for U.S pork
  - Increase trust and confidence in what we do and how we do it and
  - Minimize the risk of negative influences.
- In 2019, we will implement a number of actions resulting from recommendations made by industry representatives that further refined and defined our We Care ethical principles, which have been codified for more than a decade.
- Growing demand for pork will require increased consumer trust and confidence. Improving transparency and communication around responsible production practices is essential at local, state, national and the international level.
- It's critical for us to communicate our principles, practices and proof in a way that is clear and relevant to those outside of the pork industry.
- [Environmental Protection Agency](#) data show that livestock production in the U.S. accounts for around 4% of total greenhouse gas (GHG) emissions.
- A recent [study](#) from the Proceedings of the National Academy of Sciences evaluated the potential impact if everyone in the United States adopted a meatless diet and found that it would only reduce total U.S. GHGs by 2.6%, and there would be a greater number of deficiencies in essential nutrients in consumers' diets.



**2018 U.S. pork exports have performed well despite a challenging trade environment.**

- As of the Nov. 2018 report, exports to Japan are holding steady, while Mexico and China have dropped. Still, 2018 performance is just slightly behind the record-breaking 2017 performance.
- The shining star in trade continues to be markets like South Korea (up more than 40%), Colombia (up about 30%) and Australia (up more than 10%).
- U.S. pork continues to face sophisticated competition from other international players.
- The Pork Board approved a 13 percent increase in funding to \$10.4 million for international marketing and emerging market development in 2019. In 2019, a comprehensive global customer research project called Pork 2040 will allow NPB access to demographic research designed to understand existing and emerging market opportunities.

**African swine fever (ASF) continues to impact China and Europe, and the U.S. pork industry is preparing for an FAD outbreak here.**

- Since African swine fever was first reported in China in early August 2018, the National Pork Board and our partners at the National Pork Producers Council, Swine Health Information Center, American Association of Swine Veterinarians and the North American Meat Institute have been coordinating a comprehensive and unified pork industry response.
- Representatives from each organization make up the ASF Crisis Team, which works regularly to assess and address the situation, working in collaboration with USDA/APHIS.
- African swine fever is a disease affecting only pigs, not people -- so it is not a public health threat nor a food-safety concern.
- U.S. pigs are not affected by the African swine fever (ASF) outbreaks in other countries, to date.
- The USDA does not allow importation of pigs or fresh pork products into the U.S. from areas or regions of the world that are reported positive for the ASF virus. Restrictions are based on USDA's recognition of the animal health status of the region and are enforced by the Animal Plant Health and Inspection Service. International travelers should be diligent in following all rules and regulations related to the US Customs and Border Patrol reentry declarations.
- According to a study done by Dermott Hayes at ISU, the first year revenue loss due to an African Swine Fever (ASF) outbreak in the U.S. is estimated to be \$8 billion for pork, \$4 billion for corn and \$1.5 billion for soybeans.
- Keeping trade limiting foreign animal diseases like ASF out of the U.S. is critical to pork producers along with taking steps necessary to elevate the level of FAD preparedness in the industry.
- The industry's Secure Pork Supply Plan is developing procedures that pork producers, processors and Federal and State agencies all agree are feasible to allow for the safe movement of animals from farms in an FAD Control Area to harvest channels or other production sites as long as they have no evidence of disease.
- The SPS will launch mid-year 2019, but you can learn more today on [pork.org](http://pork.org) and [securepork.org](http://securepork.org).

**Cell Cultured Meat**

- The National Pork Board supports industry growth and innovation, providing consumers a variety of options for the best possible eating experience. We also believe meat from farm-raised pigs is a good protein choice given its versatility, accessibility and nutritional benefits.
- While cell cultured meats are gaining interest, the [growth](#) of the market is minor compared to animal protein growth. World meat production is expected to [double by 2050](#), and Americans are expected to eat a [record amount of red meat and poultry](#) raised from farm animals in 2018.
- While many [American consumers](#) indicate they are willing to try cell-cultured meat, few believe it will replace farm-raised meat in their diet. Their primary concerns include price, taste and a concern that the product is unnatural.
- As the voice of America's pig farmers, the National Pork Board is committed to providing today's consumers with a high quality, safe and delicious source of protein.
- Food safety is the number one priority of America's farming and agriculture industry. As consumers demand more transparency about where their food comes from, we believe the same expectations must be made of cell- cultured meat.
- Currently, there is no research available on food safety differences between traditional animal production and cell-cultured or plant-based products. There needs to be research in this area, so that consumers can make an informed decision when comparing their options.

## Lutton, Sara - AMS

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**From:** Randy Krotz <rkrotz@usfraonline.org>  
**Sent:** Monday, October 16, 2017 10:08 PM  
**To:** Brad Greenway; brooksid@adams.net; Chris Galen; GeickStevenR@JohnDeere.com; gylee@srvinet.com; jhouston@beef.org; Jim & Anne Meis; Jeanette Merritt; (b) (6); michael.parrish@monsanto.com; monty.henderson@georgesinc.com; (b) (6); studercharlesa@johndeere.com; svanderwal@fb.org; (b) (6); todd.frazier@pioneer.com; GeickStevenR@JohnDeere.com; amanda.rinehart@pioneer.com; novak@ncga.com; Bill Even; jbecherer@unitedsoybean.org; John Starkey; 'Kendal Frazier; Neil Dierks; Anne Alonzo; Zippy Duvall; John Johnson; Julie Anna Potts; 'Lisa O'Brien (lobrien@unitedsoybean.org); Luther Markwart; JMcCreedy@amalsugar.com; Julie Anna Potts macet@fb.org; Dallas Hockman; gvenable@uspoultry.org; Kevin Waetke; Ladonna lee; Season Solorio; sharyl.sauer@pioneer.com; Mary Hagan; LEAKE, BRIAN D. [AG/1000]; Scott Herndon; Lauren Taylor (LTaylor@indianasoybean.com); arichardson (arichardson@aeb.org); bishop\_grady\_l@elanco.com; parr\_dekker\_colleen@elanco.com; lee.quarles@monsanto.com; Doyle Karr; Lood, Christina; Sizelove, Jeff; Elliott, Beth; Pinkerton, Wendy; Lowe, Jonathan; White, Elinore Y; 'weinzier@ilcorn.org'; cfloss@iowacorn.org; craigr@ilsoy.org; Anna Leigh Peek; Brian Baenig; bill.zucker@ketchum.com; Enciso, Maxine; Melissa Kinch (melissa.kinch@ketchum.com); Mary Seltzer (Mary.Seltzer@ketchum.com); leah.dorman@pahc.com; 'Cathy Riley (Cathy@MNsoybean.com); Cindy Cunningham; Darren Wallis; sarah.hull@syngenta.com; gmarshall@mocorn.org; gianino@ncga.com; Hurst, Blake; Jane Ade Stevens; Katie Foster; Genifer Sgroi; Allison Garriga; Mark Nortman; Jennifer Johnson; Laurie Schneider; Kat Novak; Gene Hall; James Massie; Liz Ireland; Jay Vroom; victor@nebrasasoybeans.org; Tom Slunecka (tom@mns soybean.com); (b) (6); Robin Boucher; Dennis Kelley; Orso\_Mike  
**Cc:**  
**Subject:** Clean Meat - WSJ Forum Overview.

Good Morning,

Last week, USFRA attended the Wall Street Journal – Global Food Forum. As follow up to that particular one day event, the WSJ published multiple stories today about the future of food and the food industry. A substantial portion of the morning at the WSJ Forum was focused on meat substitutes and company leaders from Memphis Meats and Beyond Meat, Uma Valeti and Ethan Brown, respectfully. Ethan Brown declared meat production an environmental tragedy. I signed up for the Memphis Meats lunch table and was asked by Mr. Valeti what I thought the meat industries response would be to their product. I told them there was a long way to go before they had a marketable product, but they should seek marketing and promotional language that wasn't so divisional and false regarding the farm animal industry.

As you will read below, Paul Shapiro from HSUS made it a point to use the term "Clean Meat" multiple times throughout the day. So much so, that Daren Coppock, the CEO of the Ag Retailers Association brought the topic up to FDA Commissioner, Scott Gottlieb during a Q&A session later in the day. Daren's question was specific around the use of certain words and claims on labels that the FDA needed to address. The answer was not surprising,..funding and personnel limitations.

Please review the following for additional information on this particular topic. You will see that we left the conference and immediately investigated the term "Clean Meat" from a trademark perspective, but we missed it by seven months. (Completely my fault, I should have jumped on it when I first heard last winter.)

### Clean Meat

Besides cultured meat and in vitro meat, the terms synthetic meat, vat-grown and lab-grown meat have been used to describe meat grown in a cell culture. Advocates and companies that support the technology prefer the alternative "clean meat," because they claim the name better reflects the production and benefits of the meat but it seems to be more about rebranding. A study



about public attitudes towards “cultured meat” found only a third of consumers were willing to regularly eat cultured meat rather than conventionally produced meat because they were concerned about cost, flavor and it being unnatural.

The trademark for “Clean Meat” was requested in March 2017 by Brad Craner, the Head of Wholesale Risk Management at multinational insurance firm Zurich North America. Craner does not appear to have any ties to the food industry - it is likely he bought the trademark as an investment. Likewise, the handles [@CleanMeat](#) and [@CleanMeats](#) have been registered on Twitter since May 2016, but the accounts are completely unused. USFRA currently possesses the Twitter handle [@clean\\_meat](#).

Media use of the term “clean meat” began when the Good Food Institute published an article in the [Huffington Post](#) that claims clean meat “is more accurate” than cultured meat. Interest increased at the end of this summer after Bill Gates and Richard Branson invested in Memphis Meats. “Clean meat” has since appeared in publications like the [Los Angeles Times](#), [Bloomberg](#), [the Wall Street Journal](#), [the Guardian](#), [Fortune](#), [Forbes](#) and [Forbes again](#). Paul Shapiro ([@PaulHShapiro](#)), the Vice President of the Humane Society of the United States, will publish a book entitled *Clean Meat: How Growing Meat Without Animals Will Revolutionize Dinner and the World* on Jan 2, 2018.

[The Good Food Institute \(GFI\)](#) is a U.S. nonprofit that promotes “clean meat” alternatives to conventional animal agriculture products = with several nonprofits (New Harvest, Modern Agriculture) and companies (Memphis Meats, Mosa Meats, Super Meats). [Their website](#) claims that, “rather than obtaining meat from animals raised on environmentally destructive factory farms and slaughtered in filthy slaughterhouses, clean meat is produced by taking a small sample of animal cells and replicating them in a culture outside of the animal. The resulting product is 100 percent real meat, but without the antibiotics, E. coli, salmonella, or waste contamination – all of which come standard in conventional meat production.” Memphis Meats calls itself the [leading clean meat company](#) in the U.S.; they released the “first clean meatball” in February 2016 and the [world’s first clean poultry](#) in March 2017.

**Randy P. Krotz**  
*Chief Executive Officer*  
**U.S. Farmers & Ranchers Alliance**  
**16020 Swingley Ridge Road, Suite 300**  
**Chesterfield, MO 63017**  
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## Lutton, Sara - AMS

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**From:** John Johnson  
**Sent:** Wednesday, December 13, 2017 8:08 PM  
**To:** Janet Riley  
**Cc:** Adria Huseh; Kevin Waetke; Daren Williams; Kate Spinello; Cindy Cunningham; Dave Pyburn  
**Subject:** Re: Question on Lab Grown Meat/Plant Based Protein

[Quartz reports](#) that “plant-based burgers are turning the grocery meat aisle into a protein aisle” since Beyond Meat will be able to triple its production with it additional \$55 million in funding and with its deals in retail, restaurants and food service. Beyond Meat has signed a deal with food-service company Sysco, which could help get the Beyond Burger into hotels, small burger restaurants, other restaurant chains, and schools. According to Food Navigator, sales of alternative meat rose more than 6 percent between 2016 and 2017 to around \$554 million.

John A. Johnson

On Dec 13, 2017, at 4:50 PM, Janet Riley <[jriley@meatinstitute.org](mailto:jriley@meatinstitute.org)> wrote:

Thanks for all the feedback. The dilemma among our members was this – it would be nice to know the reasons why people may be looking at these options, but how much do we want to spend to research the issue? That’s why I thought it would be good to check around to see if others had data.

Thank you for all this info.

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**From:** Adria Huseh [<mailto:ahuseh@pork.org>]  
**Sent:** Wednesday, December 13, 2017 3:47 PM  
**To:** Kevin Waetke <[kwaetke@pork.org](mailto:kwaetke@pork.org)>; Janet Riley <[jriley@meatinstitute.org](mailto:jriley@meatinstitute.org)>; Daren Williams <[dwilliams@beef.org](mailto:dwilliams@beef.org)>; Kate Spinello <[kspinello@beef.org](mailto:kspinello@beef.org)>; Cindy Cunningham <[ccunningham@pork.org](mailto:ccunningham@pork.org)>  
**Cc:** John Johnson <[johnjohnson@pork.org](mailto:johnjohnson@pork.org)>; Dave Pyburn <[dpyburn@pork.org](mailto:dpyburn@pork.org)>  
**Subject:** RE: Question on Lab Grown Meat/Plant Based Protein

I second what Kevin stated below. In addition, consider over the last few years protein, in general, has really been a hot button for consumers, researchers too, in maintaining a healthy weight and improving overall quality of diets. Not all proteins are created equal. As Kevin stated millennials are seeking more green or sustainable proteins based on their impact to the environment and dietary CHOICES. People like having choices and options to choose from – that’s with any product. It’s not about 2-3 options anymore, anywhere you look there are 10+ options of any product b/c that is what consumers have demanded over the years.

Few things to keep in mind too:

- Bugs/Insects – is a growing “protein sector.” Not as a stand-alone protein, still possible, but more so as an ingredient. Trust me bugs/insects will be making their way into product development and incorporated as alternative proteins (think as an ingredient).
- Lab meat – even though it is not widely available and the technology is still developing – keep in mind it will be COSTLY price per pound compared to conventionally raised meat. There might be a consumer demographic willing to pay the premium for this protein but for now – the majority of consumers are still driven by price.
  - The whole point of lab-grown meat is to create a more sustainable product that doesn’t require the hassle of livestock production
    - Not sure if you remember the W. Post article written on this back in May:
      - *2011 study calculated that growing meat in labs would cut down on the land required to produce steaks, sausages and bacon by 99 percent and reduce the associated need for water by 90 percent. What’s more, it found that a pound of*

*lab-created meat would produce much less polluting greenhouse-gas emissions than is produced by cows and pigs, even poultry.*

- Here is link to full article  
[https://www.washingtonpost.com/national/health-science/lab-grown-meat-is-in-your-future-and-it-may-be-healthier-than-the-real-stuff/2016/05/02/aa893f34-e630-11e5-a6f3-21ccdbc5f74e\\_story.html?utm\\_term=.7643a6995e07](https://www.washingtonpost.com/national/health-science/lab-grown-meat-is-in-your-future-and-it-may-be-healthier-than-the-real-stuff/2016/05/02/aa893f34-e630-11e5-a6f3-21ccdbc5f74e_story.html?utm_term=.7643a6995e07)
- 
- Plant proteins/Grains and legumes – complementary proteins were once thought, in order to reap the benefits of a complete amino acid profile they had to be consumed together at the same meal – this is proven to be untrue due to more current research and your body can still reap the complete protein benefits if consumed within a 24 hour period together – opens up the protein options for vegetarians and any consumer really.

Some points regarding sustainability and livestock production: See 2 attached research papers provided:

As we know there isn't enough land to grow food for everyone to be vegan or vegetarian. It's just not realistic and many parts of the world can't support crops like those grown in the US. I do think people should eat a more balanced diet similar to what the Dietary Guidelines suggest. This would not only help reduce overconsumption of many food groups but also would ideally help with food waste – both would improve our carbon footprint on the planet.

I attached the Ridoutt paper too that essentially says it found that the available evidence on sustainable diet was 'scant' and it was difficult to conclude what dietary recommendation would be effective other than to follow dietary guidelines (eat according to energy and nutrient needs) and reduce food waste. I highlighted, in yellow, some points worth noting in the attached. The researchers found that the plants-only agriculture model produced 23% more food; however, it met fewer of the U.S. population's requirements for essential nutrients. In addition, although animals now make up some 49% of agricultural GHG (623 million tons/year) in the United States, a plants-only nation would eliminate only 28% of agricultural GHG (446 million tons/year). When nutritional adequacy was evaluated by using least-cost diets produced from foods available, more nutrient deficiencies, a greater excess of energy, and a need to consume a greater amount of food solids were encountered in plants-only diets.

The second paper from Australia; key message is that eating according to the Australian Dietary Guidelines is a sustainable diet along with reducing plate wastage; and the dietary change which will have the greatest impact on health and planet is to reduce intake of discretionary foods.

There's a rebuttal to about any topic I supposed.

Let me know if you have questions.

Healthy Regards,

Adria Huseh, RDN, LD, CPT

**National Pork Board**

Manager Nutrition Communications & Research

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**From:** Kevin Waetke

**Sent:** Wednesday, December 13, 2017 12:57 PM

**To:** Janet Riley <[jriley@meatinstitute.org](mailto:jriley@meatinstitute.org)>; Daren Williams <[dwilliams@beef.org](mailto:dwilliams@beef.org)>; Kate Spinello <[kspinello@beef.org](mailto:kspinello@beef.org)>; Cindy Cunningham <[ccunningham@pork.org](mailto:ccunningham@pork.org)>

**Cc:** Adria Huseh <[ahuseh@pork.org](mailto:ahuseh@pork.org)>; John Johnson <[johnjohnson@pork.org](mailto:johnjohnson@pork.org)>

**Subject:** RE: Question on Lab Grown Meat/Plant Based Protein

We have not specifically conducted formal research – but checking now with Adria. John Johnson also attended a recent summit on this topic and may have great insight.

I see interest tending toward:

1. Millennial audiences favor food choices which meet their values structure and commitment to sustainable practices
2. Reaction to media coverage defining livestock production as harmful to the environment
3. General trend toward healthiness and consumer interest in increasing plant-based diets or alternative protein sources (i.e. whey, soy products, yogurt, nuts, meal and dietary supplements)
4. Increasing focus on the vegan mindset
5. Animal welfare as a topic (again, values driven) and the fact that science has progressed to the point that protein alternatives to meat exist. Marketing promotion builds upon this mindset – there's money to be made.
6. Fear of red meat in the diet for all the wrong reasons. More research extolling the benefits of red meat as healthy, nutrient-dense options would be beneficial to promote.

Thanks – Kevin

**Kevin Waetke, APR**

Vice President, Strategic Communications

Office: 515-223-2638

Cell: (b) (6)

**National Pork Board**

1776 NW 114<sup>th</sup> Street

Des Moines, Iowa 50325

[KWaetke@pork.org](mailto:KWaetke@pork.org)

<image001.jpg>

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**From:** Janet Riley [<mailto:jriley@meatinstitute.org>]

**Sent:** Wednesday, December 13, 2017 12:23 PM

**To:** Daren Williams <[dwilliams@beef.org](mailto:dwilliams@beef.org)>; Kevin Waetke <[kwaetke@pork.org](mailto:kwaetke@pork.org)>; Kate Spinello <[kspinello@beef.org](mailto:kspinello@beef.org)>; Cindy Cunningham <[ccunningham@pork.org](mailto:ccunningham@pork.org)>

**Subject:** Question on Lab Grown Meat/Plant Based Protein

Good afternoon!

We were discussing internally how to respond to the questions we seem to receive lately about lab grown meat and plant based protein.

During a committee meeting here, some members mentioned that it would be nice to know the reasons WHY consumers are turning to meat alternatives so that we could determine the best way to respond.

I was curious – have either of your groups polled on these issues? Or have you developed any materials? We are thinking of developing a backgrounder that we can give to reporters when they ask.

Thanks for sharing any insights you have.

Janet

**Register today for these NAMI Events:**

*Worker Safety Conference and Awards for the Meat and Poultry Industry, Atlanta, Georgia, January 29-30, 2018*

*Environmental Conference and Awards for the Meat and Poultry Industry, Atlanta, Georgia, January 29-30, 2018*

*International Production and Processing Expo, Atlanta, Georgia, January 30-February 1, 2018*

*Annual Meat Conference, Nashville, TN, February 25-27, 2018 [www.meatinstitute.org](http://www.meatinstitute.org)*

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**Register today for these NAMI Events:**

*Worker Safety Conference and Awards for the Meat and Poultry Industry, Atlanta, Georgia, January 29-30, 2018*

*Environmental Conference and Awards for the Meat and Poultry Industry, Atlanta, Georgia, January 29-30, 2018*

*International Production and Processing Expo, Atlanta, Georgia, January 30-February 1, 2018*

*Annual Meat Conference, Nashville, TN, February 25-27, 2018 [www.meatinstitute.org](http://www.meatinstitute.org)*

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**From:** John Johnson  
**Sent:** Friday, March 31, 2017 10:34 AM  
**To:** Dave Pyburn  
**Cc:** NPB Senior Leadership Team; Scitech; Liz Wagstrom; Courtney Knupp  
**Subject:** Re: D.C. GETS FIRST PLANT-BASED 'MEAT' LOBBYIST

This group was featured prominently at the food conference I attended this week in CA.

John A. Johnson

On Mar 31, 2017, at 7:17 AM, Dave Pyburn <[dpyburn@pork.org](mailto:dpyburn@pork.org)> wrote:

**D.C. GETS FIRST PLANT-BASED 'MEAT' LOBBYIST:** There's a new lobbyist in town and she's focused on making plant-based and lab-grown meat more mainstream. The Good Food Institute, which supports eliminating the use of animal products by promoting replacements, has hired [Joanna Grossman](#) to represent it on Capitol Hill.

**"I'm essentially the only lobbyist focused on plant-based meat,"** says Grossman, who recently swung by POLITICO HQ in Washington to catch up.

Grossman was previously [registered as a lobbyist](#) representing the Society for Animal Protective Legislation, a division of the Animal Welfare Institute. She comes to GFI with a hefty academic resume, including a Ph.D. and M.A. from Harvard University. She was also a Fulbright Scholar at the University of Oxford. Grossman joins a growing shop at GFI. The group is currently looking to hire 18 more staff, she said. Find more on GFI's work from WaPo [here](#).

Dr. Dave Pyburn  
Vice President of Science and Technology  
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---

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## Lutton, Sara - AMS

---

**From:** Dave Pyburn  
**Sent:** Tuesday, August 8, 2017 9:22 AM  
**To:** John Johnson  
**Cc:** Bill Even  
**Subject:** RE: Lab Grown Meat

At least you are not calling it "clean". If the public will eat that then gene-edit and GMO should be no problem.

Dr. Dave Pyburn  
Vice President of Science and Technology  
National Pork Board  
1776 NW 114th St., Clive, IA 50325

Phone: 515-223-2634  
Cell: (b) (6)  
Fax: 515-309-5715  
Email: [DPyburn@pork.org](mailto:DPyburn@pork.org)

---

**From:** John Johnson  
**Sent:** Tuesday, August 8, 2017 8:13 AM  
**To:** Dave Pyburn <[dpyburn@pork.org](mailto:dpyburn@pork.org)>  
**Cc:** Bill Even <[BEven@pork.org](mailto:BEven@pork.org)>  
**Subject:** Re: Lab Grown Meat

You heard it here first...

John A. Johnson

On Aug 8, 2017, at 3:07 PM, Dave Pyburn <[dpyburn@pork.org](mailto:dpyburn@pork.org)> wrote:

**Care2: Will Lab-Grown Meat Overtake the Animal Agriculture Industry?**

[Link](#) - We're rocketing toward a future where we can have meat without slaughtering millions of animals.

Dr. Dave Pyburn  
Vice President of Science and Technology  
National Pork Board  
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Please conserve our natural resources, think twice before you print this e-mail.

## Lutton, Sara - AMS

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**From:** Alicia Pedemonti  
**Sent:** Tuesday, October 10, 2017 9:03 AM  
**To:** John Johnson  
**Cc:** Kevin Waetke  
**Subject:** Re: Wall Street Journal Global Food Forum

Thank you for your thoughts John!

Alicia

Sent from my iPhone

On Oct 10, 2017, at 8:58 AM, John Johnson <[johnjohnson@pork.org](mailto:johnjohnson@pork.org)> wrote:

Alicia,

Obviously, consumer choice will play out in the marketplace, and we cannot oppose choice.

So, while acknowledging that plant based meat alternatives, or meat cultured in the laboratory will be available, its cost and regulatory approvals might slow consumer acceptance.

Consumers who balk at buying genetically modified food stuffs, likely will also hesitate to buy meat grown in a petri dish.

There are also regulatory hurdles that cultured meat will need to clear. <http://nypost.com/2017/08/12/the-fda-wont-call-this-80m-veggie-burger-safe-and-thats-delicious/>

Bottomline, we have an abundance of healthy protein choices available to U.S. consumers and hog farmers are proud to provide an array of choices that alternative proteins cannot, everything from pork belly, to chops, to holiday hams, to pulled pork, to the ever popular bacon. Today's pork has the smallest environmental footprint in more than 50 years, and it is getting smaller all the time. Food safety record of pork is excellent and the nutrition profile is great. So, relax, have a beer or a glass of wine and enjoy the best pork ever!

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**From:** Kevin Waetke  
**Sent:** Monday, October 9, 2017 8:22 PM  
**To:** Alicia Pedemonti <[APedemonti@pork.org](mailto:APedemonti@pork.org)>  
**Cc:** John Johnson <[johnjohnson@pork.org](mailto:johnjohnson@pork.org)>  
**Subject:** RE: Wall Street Journal Global Food Forum

Alicia

I am still searching for general points on synthetic meat. We do not really have anything specific other than the technology has a long way to go before becoming commercially viable. A very small percentage of people are buying the product, but we do recognize the consumer interest and curiosity. Investors are seeking to further develop it.

But that did get me thinking about gene editing as a potential topic of interest too. I am attaching our communication points on this emerging technology. This document includes our traditional talking points for today's pig production as well as the emerging technology of gene editing. But I will let you know if I can find additional information on synthetic meat.

John: do you have any high level thoughts for Alicia as she attends WSJ Global Food Forum tomorrow? The topic of synthetic meat may surface.

Thanks! Kevin

**Kevin Waetke, APR**

Vice President, Strategic Communications

Office: 515-223-2638

Cell: (b) (6)

**National Pork Board**

1776 NW 114<sup>th</sup> Street

Des Moines, Iowa 50325

[KWaetke@pork.org](mailto:KWaetke@pork.org)

<image001.jpg>

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**From:** Alicia Pedemonti

**Sent:** Sunday, October 8, 2017 1:23 PM

**To:** Kevin Waetke <[kwetke@pork.org](mailto:kwetke@pork.org)>

**Subject:** Re: Wall Street Journal Global Food Forum

Tuesday. Thanks.

Alicia

Sent from my iPhone

On Oct 8, 2017, at 2:19 PM, Kevin Waetke <[kwetke@pork.org](mailto:kwetke@pork.org)> wrote:

I will see what I can scrape up. Is the event tomorrow?

Kevin Waetke

Cell: (b) (6)

On Oct 8, 2017, at 11:52 AM, Alicia Pedemonti <[APedemonti@pork.org](mailto:APedemonti@pork.org)> wrote:

Hello Kevin-

Looks like you've had a nice few days in Boston!!!

I've connected with Kay and Hannah at animal Ag alliance. We have plans for the evening before to meet up over dinner. What is the relationship between their organization and NPB?

I've done a bit of homework on speakers and their organizations for the event. One question I do have is regarding fake/synthetic/engineered meat products. They will definitely have a presence at this event. Do we have any talking points, official opinion, etc on these products?

Thanks!

Alicia

Sent from my iPhone

On Oct 6, 2017, at 3:44 PM, Kevin Waetke <[kwaetke@pork.org](mailto:kwaetke@pork.org)> wrote:

Alicia:

This reminded me of your upcoming trip to NYC next week for the Wall Street Journal Global Food Forum. Did you want to discuss the event or do you have any questions as you prepare to attend?

Also, note below that Kay from Animal Ag Alliance will be on site; it would be good for you to both connect.

Link to event: <https://globalfood.wsj.com/schedule/>

Thanks!

**Kevin Waetke, APR**

Vice President, Strategic Communications

Office: 515-223-2638

Cell: (b) (6)

**National Pork Board**

1776 NW 114<sup>th</sup> Street

Des Moines, Iowa 50325

[KWaetke@pork.org](mailto:KWaetke@pork.org)

<image002.jpg>

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**From:** Cindy Cunningham

**Sent:** Thursday, October 5, 2017 1:47 PM

**To:** Kevin Waetke <[kwaetke@pork.org](mailto:kwaetke@pork.org)>

**Subject:** FW: Wall Street Journal Global Food Forum

Kevin

If you have been working with Alicia—would you like to let her know Kay will be there and it would be great if they could connect?

Thanks

Cindy

*Cindy Cunningham*

*Assistant Vice President of Communications*

*National Pork Board*

[ccunningham@pork.org](mailto:ccunningham@pork.org)

515-223-2600 office

(b) (6) cell

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**From:** Kay Johnson [<mailto:kjohnson@animalagalliance.org>]

**Sent:** Thursday, October 5, 2017 1:46 PM

**To:** Cindy Cunningham <[ccunningham@pork.org](mailto:ccunningham@pork.org)>; 'Hannah

Thompson-Weeman' <[hthompson@animalagalliance.org](mailto:hthompson@animalagalliance.org)>

**Subject:** RE: Wall Street Journal Global Food Forum

Great – we'll try to connect with her there & it might be great to let her know we'll be there too.

Last year, Julie Maschoff was there b/c she was on the program. Here's a [link](#) to this year's program.

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Please conserve our natural resources, think twice before you print this e-mail.

**From:** Dallas Hockman <hockmand@nppc.org>  
**Sent:** Friday, January 5, 2018 10:33 AM  
**To:** Bill Even; Jarrod Sutton  
**Subject:** FW: Outlook for 2018

## Looking Forward: Top 10 Issues for 2018 in Food and Farming

By [Ecocentric](#) | 12.28.2017

In the past year since the Trump administration took office, we've had some crushing blows to our food and environmental systems. We've witnessed major cuts to the EPA, rollbacks on the Farmer Fair Practices Rules and proposed reductions to SNAP benefits. But we've also seen incredible momentum by consumers and advocates alike to support policies and initiatives that will make for a better future. We've rounded up a list of what food, farming and environmental issues to look out for in the next year and included ways you can stay involved and be an active food systems voice in 20

### 1. The Future of Organics

The organic community could be in for a big shakeup in 2018 after the National Organic Standards Board [NOSB] [voted to let hydroponic and aquaponic farming stay in](#) the program. The vote caused a [fracture within the organic industry](#) between those that see organic as meaning without synthetic pesticides, and those that believe its principles are linked to soil quality. After several other decisions by the board, the vote prompted [NOSB member Francis Thicke](#) to resign. Thicke has stated that "...big business is taking over the USDA organic program because the influence of money is corroding all levels of our government," and is calling for the [creation of an add-on label](#) that would ensure "organic integrity." Stay tuned for changes to the organic certification brand and its label, and what that means for your food.

### 2. A Big Fight May Be on the Horizon Over the 2018 Farm Bill

The [farm bill is a gigantic \\$956 billion \(over ten years\) piece of federal legislation](#) that dictates America's food and agriculture policy. While the vast majority of Farm Bill funding - about 75 percent - goes to the Supplemental Nutrition Assistance Program (or SNAP, formerly known as food stamps), the vast majority of the remaining funding goes to a combination of crop insurance, conservation and commodity programs. Only about \$2.5 billion of the Farm Bill goes to a combination of forestry, rural development and sustainable agriculture programs. The current 2014 Farm Bill is set to expire in September 2018. The Trump Administration has made it clear that [welfare is the next big focus](#) for them, including changes to SNAP that will likely make it more difficult for people to access the program and reduce enrollment. In response, Republicans and Democrats are gearing up for a big fight over changes to the program that may derail the entire farm bill process. If a new farm bill is not passed on time - [and many experts believe that it won't be](#) - progressive sustainable food and farming programs that lack what's called [baseline funding beyond FY2018](#) may be left stranded and without funding to operate, including the [Food Insecurity Nutrition Incentive Grant Program](#), the [Farmers Market Promotion Program](#), the [Beginning Farmer and Rancher Program](#) and the [Organic Agriculture Research and Extension Programs](#).

If you care about these issues and their associated programs, make sure [you're registered to vote](#), check out where your elected officials stand on the issues with [Food Policy Action](#) and stay on top of what's going on with updates from the [National Sustainable Agriculture Coalition](#).

### 3. Natural Disasters Will Continue to Disrupt Our Food System

The Atlantic hurricane season of 2017 was devastating thanks to a series of major landfalling storms. The historic rainfall in Texas from [Hurricane Harvey](#) damaged vegetable crops, food warehouses and transportation routes, and forced ranchers to have to scramble to move their cattle to higher ground. The wind and rain from [Hurricane Irma](#) wiped out an estimated 30 to 70 percent of



Florida's citrus crop. [Hurricane Maria](#) destroyed 80 percent of Puerto Rico's agricultural industry, a \$780 million loss. In each case, America's ability to grow and distribute its food supply was compromised. Unfortunately, the 2017 hurricane season's damage to our food system is not unlike previous recent years; consider [Irene](#), [Katrina](#) and [Sandy](#), for example. We should anticipate more of the same in 2018, given our changing climate.

The key to withstanding future storms is building up resilience throughout the entire food system. Just as farms should adopt techniques to make them [more resilient to future storms and climate change](#), city planners must prepare now to ensure [food access during major storms and other emergencies](#). We can all play a part, too, by supporting local and regional farmers to help make our food system stronger.

## 4. Food Waste Rises Up

Food waste was one of the most pressing topics of 2016, and only continued to gain attention throughout 2017. The issue is two-pronged. In the United States, [40 percent of food is wasted](#), while one in eight people suffer from hunger. These statistics are a symptom of an inefficient and misdirected food system. What's more, addressing the problem requires action across the entire supply chain: consumer education and advocacy to tackle food waste at home; pushing for improved approaches at the commercial level that keep food waste at the forefront; [untangling the politics surrounding expiration date labeling](#); and re-directing excess food to where it's needed most. This year, food waste officially made it to the big screen in Anthony Bourdain's documentary, *Wasted!* The film highlights the fact that food waste is certainly not a singular issue; rather, it has far-reaching effects on several other issues facing our society, like climate change and food insecurity.

The positive side of this issue? There are endless things that we as eaters can do to minimize food waste, starting in our very own kitchens - and we're doing it. Momentum to end food waste is growing within municipalities, private companies and with individuals. We have the agency to keep food waste in mind when shopping, prepping, cooking and saving, and collectively we can make a big difference. To start, here [are five easy ways to reduce food waste](#). And if you're looking for more resources, there are [countless organizations and campaigns](#) out there to turn to for support. Let's make 2018 a waste-not year.

## 5. Harmful Algal Blooms Now Have Their Own Sad Season

Harmful algal blooms are the threat that keeps on growing. In [waterways around the US](#) (and the world), toxic algae is now a sad seasonal occurrence that peaks in late-summer or early fall. These outbreaks are worsening as a potent mix of warmer average temperatures caused by climate change combines with nutrient pollution from industrial agriculture and factory farm runoff, wastewater treatment plant discharges and other sources to supercharge growth. Harmful algal blooms can be damaging to people, pets, wildlife, fish and ecosystems, while exacting a high economic toll.

There are innumerable examples of this ongoing struggle against harmful algal blooms, with Exhibit A being the massive, infamous [Gulf of Mexico dead zone](#) that was the largest ever measured in 2017, and Exhibit B, [Lake Erie's noxious algal bloom](#) that was its third largest.

It's time to prevent our waters from being fouled by tides of [green muck \(not to mention yellow, brown and red\)](#). One major step people can take to lessen their impact is to choose water-smart foods. When possible, talk to farmers at local markets about what they're doing to limit runoff. When buying meat, look for [Animal Welfare Approved](#) for the gold-standard in sustainably, responsibly produced animal products. Also, check out the [Good Groceries Guide](#) for mor

## 6. The Era of Deregulation

On January 30th, President Trump signed [Executive Order 13771](#) which requires that "for every regulation issued, at least two prior regulations be identified for elimination, and that the cost of planned regulations be prudently managed and controlled through a budgeting process." During his presidential campaign, Trump promised to reduce the number of federal regulations. This executive order makes good on that promise. The implications of this executive order have already been widely felt and will continue to play a major role in how laws are implemented and federal agencies operate in the New Year. Already, the Trump Administration has used this order to be able to withdraw the [Farmer Fair Practice Rules](#) and delay the [Organic Livestock and Poultry Practices Rule](#).

To help people stay on top of what and how much is being deregulated under the administration, experts at the Brookings Institute have put together a new online database of deregulation activity across federal agencies called the [Reg Tracker](#). You can even filter the database by subject area like Agriculture or the Environment to see what deregulation has been happening specifically in those areas.

## 7. Agriculture's Ongoing Role in Climate Change

In 2018, we will continue to see the role agriculture is taking in climate change with soil quality, water use, air quality and animal agriculture. In 2017, we learned that the [top three meat companies emitted](#) more greenhouse gases than all of France and nearly as much as the energy giant Exxon. We also learned that livestock and other ruminant animals contribute around 14 percent of climate emissions whether they were raised in sustainable environments or not, and that grazing animals only offer [slight potential](#) to reduce atmospheric greenhouse gas pollution (an often-argued belief). Fortunately, [sequestering carbon in soil](#) can help reduce climate change when applied on a large scale while also capturing other environmental improvements through regenerative farming principles. In the coming year, we should see a more complete picture of agriculture's role as a greenhouse gas contributor, but also its potential in helping to offset the harmful effects of climate change and produce more resilient systems. Getting to know your farmer and shopping local are the first steps in staying climate friendly. Regenerative International has a [list of resources](#) to help consumers purchase regenerative foods and reverse climate change.

## 8. The Rise of the Meat-Free Burger

The growing attention to greenhouse gases, animal welfare and public health has put meat in hot water, galvanizing alternative meat producers to strike while the iron is hot. The Beyond Meat and the Impossible Burger are taking front stage in the era of new-age burger solutions, challenging consumers to see if they can spot a difference in flavor. The replacements are hitting the market fast, and come in several forms. Two strictly plant-based approaches are the genetically modified [heme-forward Impossible Burger](#) and the Beyond Meat Burger, which blend specific plants to achieve meat-like nutrient content. Some companies are taking a more radical approach. The grown-in-a-petri-dish varieties by [Memphis Meats](#) and [Hampton Creek](#) use [stem cells](#) to bypass the use of land and animals and have been dubbed "clean meat." Tyson, one of the United States' leading meat producers, bought a [five percent stake in the Beyond Burger](#), marking the relevance of meat alternatives to even the most devoted carnivore. The burgers are the [latest in the trend of startups](#) confronting food systems problems with technological solutions. The advancements are in many ways optimistic, but will no doubt come with their own set of concerns.

Reducing meat consumption is an important choice for consumers to make, but we realize the alternatives can be baffling. Consumers can stay informed regarding the developments of new meat alternatives, but can always rely on plant-based proteins as a safe bet.

## 9. The Increasing Threat of Antibiotics Used in Agriculture

The continued use of antibiotics in industrial animal agriculture has put antibiotics used for human medicine at risk, meaning we are entering into a future where we will be unprepared to combat certain diseases. The drugs, which represent 80 percent of antibiotics sold in the US, are predominantly used to prevent disease and promote growth, rather than being used to treat sick animals. The use of unnecessary antibiotics has been linked to the rise of drug-resistant bacteria and infections. These antibiotics are a crucial component to human medicine.

According to the [Centers for Disease Control and Prevention](#) (CDC), each year at least 23,000 people die and at least two million people become sick from antibiotic-resistant infections. Given the significant impact to public health, there have been increasing calls to reduce antibiotic use on animals raised for food (hogs, cattle, chicken and turkeys) in order to slow the development of drug-resistant bacteria strains. And consumers and the food industry seem to be heeding the call. New data [recently released](#) by the FDA shows a 14 percent decrease in livestock sales of antibiotics important to human medicine from 2015 to 2016, whereas from 2009 to 2015 these sales had been on the rise. The decrease in sales for 2016, while encouraging to some degree, are significantly above the 2009 amount. Understanding the link between the meat on one's plate and the efficacy of antibiotics can be confusing, but it is pressing that we continue to educate people and communities about the dangers of overusing antibiotics.

To help protect the safety of antibiotics, when shopping, look for meaningful labels such as the [USDA Organic](#) seal. Or look for a "no antibiotics" claim that is combined with a [USDA Process Verified](#) shield. These labels are reliable because they are independently verified. There are other labels you can look for, which either allow antibiotics only for the treatment of sick animals or prohibit antibiotic use flat out - these labels include [Animal Welfare Approved](#), [Global Animal Partnership](#) and [American Grassfed](#). Skip the "natural" label.

## 10. Collective Consumer Voices Are Causing Shifts in Demand

There might be a lot to feel down about in our food system, but it's important to note the influence that we as eaters have. From tackling food waste to advocating for greater transparency in our food system, our collective voices have been able to move the needle on a number of issues. We can see this clearly in the [numerous companies that have decided to leave the Grocery Manufacturer's Association](#) (GMA), ultimately spurning a large trend. Big corporations, like Nestle and Campbell Soup Co., are set to leave the association by year's end citing a lack of response to consumer expectations by the GMA. Mars, a large private food company that owns a variety of brands ranging from candy to pet food, is expected to follow suit. Meanwhile, 25 of the largest restaurant chains have adjusted their policies on [antibiotics in their meat](#), tripling the number of restaurant policies in place just a mere three years ago, and bowing to consumer demands. Even [McDonald's](#) has introduced a vegan burger to its menu (I know, we were shocked too). Thanks to consistent consumer pressure, companies are beginning to recognize that adopting more progressive principles is in the best interest for both shoppers and companies alike. (And while these changes are a step in the right direction, there is still significant change to be made to many of these companies' practices, from labor to organic procurement and more.)

Our demand for more sustainable, transparent products has made a significant impact in our food system - ranging from [supporting small producers to help them thrive](#), to shifting large corporations' ethics and practices. As we head into 2018, let's keep up the hard work and continue doing our part to build a stronger food system. As we've seen - together we can create real, lasting change.

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*Dallas Hockman*

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# National Pork Board

## Daily Monitoring Report

February 3, 2016

### Daily Highlights

**Brownfield Ag News** said that, following an educational tour, 45% of visitors said learning about how antibiotics are used on dairy farms improved their trust and consumption of dairy products. **The Western Producer** reported that three new cases of PEDv were confirmed in Ontario in the month of January. **Ag Web** mentioned that a slowdown in plant production will backup live hogs and likely pressure cash prices in the market. **The Daily Mail** stated that British grocery chain Waitrose will be targeting animal welfare by banning factory farmed cows from producing milk for its supermarkets. And **The Atlantic** reported that the Zika virus has been transmitted in the U.S. for the first time through sexual contact, confirmed by health officials.

### Antibiotics

Estimated online news mentions related to livestock industry: 41

#### National

- *No influential national news mentions.*

#### Trade/Other

- [Brownfield Ag News](#), “Dairy Farm Tours Increase Dairy Consumption”  
After visiting a dairy farm educational tour, 45% of survey respondents said learning about how antibiotics are used on dairy farms improved their trust and consumption of dairy products.
- [Watt Ag Net](#), “Land O’Lakes, Delacon Partner to Test Feed Additives”  
Delacon believes its phytogenics can help farmers solve problems presented by the new regulation of antibiotics in animal feed.
- [Food Dive](#), “The Growth of ‘Cultured Meat’ – And How it Could Upend the Meat Industry”  
A handful of startups say cultured meat is more sustainable and benefits include less use of nutrients, such as grains needed to feed food animals, less waste, and the ability to avoid antibiotics and other additives often used to produce meat.

#### Social



[@BEEFMagazine](#) shared an [article](#) stating that Wendy's is addressing its antibiotic use in beef production.

- Followers: 22,674
- Retweets: 6
- Likes: 4

## **Foreign Animal Disease**

Estimated online news mentions related to livestock industry: 7

### **National**

- *No influential national news mentions.*

### **Trade/Other**

- [The Western Producer](#), “Three New Cases of PED Confirmed in Ontario in January”  
Three new cases of PEDv were reported on Ontario hog farms in January. The majority of infected farms in that province had either eliminated the virus or had plans to do so in 2016.

### **Social**

- *No influential social news mentions.*

## **Producer Economic Viability**

Estimated online news mentions related to livestock industry: 23

### **National**

- *No influential national news mentions.*

### **Trade/Other**

- [Reuters](#), “Weather Market Underpins CME Live Cattle Futures”  
Traders are closely monitoring near-term cash and wholesale pork prices in response to weather-related shutdowns at some packing plants. Packers processed 315,000 hogs on Tuesday, down from 440,000 a week earlier, based on government estimates.
- [Ag Web](#), “Markets Calm, Waiting for a Spark”  
A slowdown in plant production will backup live hogs and likely pressure cash prices. USDA’s Tuesday slaughter was less than trade expected due to plant closure across IA, MN. The question remains how quickly packers can get up to full speed again.

### **Social**

- *No influential social news mentions.*

## **Animal Welfare**

Estimated online news mentions related to livestock industry: 80

### **National**

- [Yahoo!](#), “As the World Tackles Climate Change, is Meat off the Table?”  
There is extensive research showing the outsize impacts of animal agriculture on the environment. The Food and Agriculture Organization of the United Nations has concluded that

"the livestock sector emerges as one of the top two or three most significant contributors to the most serious environmental problems, at every scale from local to global."

## Trade/Other

- [Journal Gazette](#), "Small-Farm Threat"

An op-ed piece arguing that a bill before the General Assembly protects the market for Big Ag, while threatening both the growing farm-to-fork movement and the appeal of farming for a new generation of Hoosiers committed to smaller and safer farming methods.

## Social



Retail analyst [@NeilRetail](#) shared an [article](#) stating that British grocery chain Waitrose will be banning factory farmed cows from producing milk for its supermarkets to target animal welfare.

- Followers: 10,186
- Retweets: 1
- Likes: 0

## Pork Safety

Estimated online news mentions related to livestock industry: 129

## National

- *No influential national news mentions.*

## Trade/Other

- [The Atlantic](#), "The Zika Cases in the United States"

The Zika virus has been transmitted in the United States for the first time through sexual contact, health officials said. Until now, the more than 30 cases of the virus reported in the continental U.S. were among travelers who returned to the country from Latin America, which, particularly Brazil, has seen a spike in Zika cases in recent months.

- [Ag Web](#), "Chipotle's Sales Have Dropped by 10.3 Million Burritos"

The outlet decided to see just how many meals Chipotle has missed, assuming an average burrito price of \$7. In the fourth quarter, the company's 6.8% drop in sales equates to about 10.3 million fewer burritos than it moved in the year-earlier period.

## Social

- *No influential social news mentions.*

# National Pork Board

## Daily Monitoring Report

March 24, 2016

### Daily Highlights

**BEEF Magazine** stated that probiotics can be an easy, cost-effective feed additive to replace antibiotics for positive systemic immune responses. **The Globe and Mail** reported that Canada's major grocery chains have full confidence in selling approved GMO foods. **Perishable News** mentioned investors' interest in American expectation to eat the most pork since 2007. **Asia One** included a video of live chicks being tossed and dyed in Easter colors. **New Matilda** featured the 'Cowspiracy Documentary' in an article discussing the role of meat in climate change. And **Brownfield Ag News** discussed NPPC's meeting with the USDA to discuss the HSUS lawsuit.

The majority of coverage since Wednesday, Mar. 23 focused on producer economic viability, followed by animal welfare and pork safety. Overall relevant coverage totaled 271 articles.

### Antibiotics

#### News

- [BEEF](#), "Check Out How Probiotics Can Help Reduce Your In-Feed Antibiotic Needs"  
An easy, cost-effective additive — that is not regulated under a VFD — is a probiotic or direct-fed microbial. These natural products help tip the balance in favor of beneficial microbes in the gut. Creating this positive systemic immune response can act as a natural preventive to help reduce the need for treatment or even the use of on-arrival antibiotics.
- [Farms.com](#), "Video: Poultry Packaging Labels: Raised Without Antibiotics"  
The video provides some clarity about the "Raised without Antibiotics" label on fresh and frozen chicken and turkey products and also reassures that American poultry products are among the safest and healthiest foods anywhere in the world.

#### Social



[@FarmsNews](#) shared an [article](#) and video regarding poultry packaging labels stating "raised without antibiotics."

- Followers: 54,311
- Retweets: 4
- Likes: 0

### Foreign Animal Disease

#### News

- [Risk Map](#), "4 Cases of Swine Flu Confirmed at Western State Hospital"  
State health officials say 3 patients and a Western State Hospital (Washington) staff member have confirmed cases of the H1N1 virus commonly known as swine flu.
- [AgWeek](#), "France Confirms Case of Mad Cow Disease"

France's agriculture ministry confirmed today that a case of mad cow disease had been discovered in the NE region of Ardennes. The suspected case, found in a five-year-old cow, was identified last week during a test carried out on cattle older than 48 months after slaughter.

## Social



[@Riskmapintel](#) shared a map and [article](#) including the four confirmed cases of swine flu at Western State Hospital in Washington.

- Followers: 3.635
- Retweets: 4
- Likes: 0

## Producer Economic Viability

### News

- [The Pig Site](#), “Pork Commentary: European Union Continues to Produce More Hogs”  
Last week, new support measures were announced for the pig meat sector. The commission will give its full consideration to a temporary acceptance of state aid that will allow member states to provide a maximum of 15,000 euros per farmer per year and no national ceiling will apply.
- [The Globe and Mail](#), “Canadian Grocers Confident in Safety of GMO Produce: Retail Council”  
The organization that represents Canada’s major grocery chains says it has full confidence in selling genetically engineered foods that have been approved by Health Canada and the Canadian Food Inspection Agency.
- [Perishable News](#), “Americans Will Pig Out on Pork Each Year, and Investors Have Taken Notice”  
With Americans expected to eat the most pork since 2007, money managers are now the most-bullish since 2014 on hog futures, which already are at a nine-month high.
- [Beef 2 Live](#), “World Cattle Exports: Ranking of Countries”  
Chart: Mexico is the largest exporter of cattle in the world followed by Australia & Canada.
- [The Pig Site](#), “Challenges of Pig Farming in Cameroon – Surviving in a World Without Meatpackers”  
Pig production in Cameroon as in many countries of Sub-Saharan Africa requires good pioneering skills. With only a minimum of organized trade, high feed costs and a high disease pressure, being successful could hardly be a larger challenge.

## Social



Producer info source [@B2L Producers](#) shared an [article](#) ranking countries by their cattle exports.

- Followers: 16,598
- Retweets: 2
- Likes: 2

## Animal Welfare

### News

- [Asia One](#), “Animal Lovers Upset Over Live Chicks Being Tossed in Easter Colors in a Video”



Cutesy multi-coloured chicks may be a big hit with kids in some Western countries during Easter celebrations. A video showing chicks being tossed with dyes has sparked anger on social media in the run up to Easter this weekend.

- [Radio Canada International](#), “Canadian Animal Welfare Activists Win Another Round for Hens Trapped in Cages”  
Canadian animal welfare activists scored a victory when the Retail Council of Canada announced that it will move to sourcing cage-free eggs by 2025.

#### **Social**

- *No influential social news mentions.*

### **Pork Safety**

#### **News**

- [Scotland Food & Drink](#), “Scottish Pig Producers Back New Pig Health Charter”  
The Scottish Pig Industry is highlighting its on-going commitment to animal health and welfare by supporting the creation of a Scottish Pig Health Charter.
- [Craft Guild of Chefs](#), “Bacon Off the Menu for a Quarter of Health Conscious Millennials”  
A poll of 2,000 people’s breakfast eating habits found that more than a quarter of people aged between 18-24 say they no longer include bacon in the hearty breakfast classic.

#### **Social**

- *No influential social news mentions.*

### **General Pork News**

#### **News**

- [Fox40](#), “‘Cowspiracy’ Documentary”  
Kip Andersen and Keegan Kuhn, makers of “COWSPIRACY” Documentary, did an interview in-studio for a CA broadcast station talking all about their documentary.
- [New Matilda](#), “Cowspiracy? Or is There a Deeper Problem?”  
The makers of the US eco-ethical-documentary “Cowspiracy” are attempting to explain why the world’s largest environmental organizations have ignored the role of meat in both climate change and more generally in trashing the planet.
- [The Des Moines Register](#), “Ag First Glance, New Pork Plant Sounds Great”  
Op-ed piece stating that though a new Iowa pork plant would create 2,000 jobs, it would cause many negative things, including decreased water and air quality, antibiotic-resistant bacteria and extraneous gas emissions.

### **HSUS Lawsuit**

#### **News**

- [Hoosier Ag Today](#), “NPPC Tells USDA: Defend ‘Other White Meat’ Sale”  
In a meeting with the U.S.D.A. Office of General Counsel, representatives of the NPPC demanded that the agency defend the purchase by the National Pork Board from NPPC of the Pork. The Other White Meat® trademarked assets.
- [Brownfield Ag News](#), “NPPC Meets with USDA to Discuss HSUS Lawsuit”

Officials of the National Pork Producers Council met with USDA officials Wednesday to discuss the lingering dispute over NPPC's sale of "The Other White Meat" trademarks to the National Pork Board.

- [Animal Ag Wired](#), "NPPC Pushes USDA to Defend Trademark Sale"  
In a meeting held earlier this week with the USDA Office of General Counsel, representatives of the NPPC demanded that the agency defend the NPB of the Pork. The Other White Meat® trademarked assets from NPPC.
- [National Hog Farmer](#), "NPPC Demands USDA to Defend 'Other White Meat' Sale"  
In a meeting today with the USDA's Office of General Counsel, representatives of the National Pork Producers Council demanded that the agency defend the purchase by the National Pork Board from NPPC of the Pork, The Other White Meat trademarked assets.
- [Agri-Pulse](#), "NPPC Meets with USDA to Discuss HSUS Lawsuit"  
Representatives from the NPPC met with USDA and Department of Justice lawyers Wednesday in Washington. Four representatives from the producer group pushed the administration to continue to fight a case brought by the Humane Society of the United States rather than seek a settlement.

# National Pork Board

## Daily Monitoring Report

September 15, 2016

### Daily Highlights

**The Verge** and **STAT News** reported advocacy groups have petitioned the U.S. FDA to restrict the use of certain antibiotics given to livestock. **The Guardian** and **The Cattle Site** also reported antibiotic resistance – in particular how it relates to farming – is topping the agenda at the next UN General Assembly. **Agri-Pulse** included interviews with former ag secretaries debating which presidential candidate would be best for the White House. **The Huffington Post** asked why both candidates have not talked about the food supply, as it matters to our economy, health and environment. And **TIME** discussed why people should not be nervous about lab-grown meat.

The majority of coverage since Wednesday, September 14 focused on antibiotics and producer economic viability. Overall relevant coverage totaled 240 articles.

### Antibiotics

#### News

- [Meat + Poultry](#), “Antibiotics Use in Agriculture Subject of New Website”  
A coalition of agriculture groups launched a new website aimed at educating consumers about changes to Food and Drug Administration policies that regulate the use of antibiotics in animals produced for food.
- [The Poultry Site](#), “Canada Invests to Reduce Antibiotics Use in Poultry”  
Thousands of Canadian dollars have been pledged to help the Quebec poultry industry reduce the preventative use of antibiotics.
- [The Cattle Site](#), “Importance of Antibiotic Resistance in Farming Stressed Ahead of UN Event”  
Good farm hygiene and animal health practices can greatly reduce the need to use antimicrobial medicines, the UN's Food and Agriculture Organisation said in its new Action Plan on Antimicrobial Resistance.
- [The Guardian](#), “Global Antimicrobial Resistance Tops Agenda at UN General Assembly”  
Heads of State and Government are expected to address the seriousness and scope of the situation and to agree on sustainable, multi-sectorial approaches to addressing antimicrobial resistance.
- [Pork Network](#), “New Website Highlights Ag’s Preparation for 2017 Antibiotics Rules”  
Media outlets like PORK Network, Drovers, Bovine Veterinarian and AgWeb are working diligently to make sure their respective producer-audiences are informed of the veterinary feed directives and the corresponding changes related to antibiotic use coming in January 2017.
- [The Verge](#), “FDA Asked to Restrict Antibiotics on Livestock”  
Advocacy groups have petitioned the US Food and Drug Administration to restrict the use of certain antibiotics given to livestock. They claim that using these antibiotics contributes to the development of antibiotic-resistant bugs that are dangerous to humans, and that the FDA’s efforts to encourage farmers to stop haven’t been effective.

## Social



[@statnews](#) shared an [article](#) stating the FDA is being urged to immediately restrict some uses of antibiotics in livestock.

- Followers: 34,702
- Retweets: 38
- Likes: 18

## Foreign Animal Disease

### News

- [The Pig Site](#), “New Study Confirms Successful LA-MRSA Strategy for Pig Herds”  
Norway is currently the only country to date to have implemented a "search and destroy" strategy against LA-MRSA among pig herds. Now, a study of the successful strategy has shown that pig farm workers are the principal source of infection among Norwegian herds, a transmission route that was previously unidentified.
- [The Pig Site](#), “FAO to Host Online China-Focused FMD Emergency Preparation Course”  
An online training course is being organized by EuFMD on Foot and Mouth Disease (FMD) Emergency Preparation over a period of 4 weeks, starting on 21 September 2016.

### Social

- *No influential social news mentions.*

## Producer Economic Viability

### News

- [Pork Network](#), “Marketing is Key to Weathering Tough Times”  
The costs of production for producers are right around breakeven, but think of the negative impact if commodity prices were higher.
- [The Daily Yonder](#), “While Most of U.S. Gets a Raise, Rural Areas Stand Pat”  
In another sign that the economic recovery is moving very slowly for rural America, median household incomes for rural Americans didn’t improve from 2014 to 2015 while they did for metropolitan areas.
- [Agri-View](#), “Trade Talks Key for U.S. Meat Industry”  
The Trans-Pacific Partnership may be stealing the headlines, but Erin Borrer says working on trade issues is a never-ending process.
- [Herald & Review](#), “Production of Pork Surging Again in Illinois”  
Travelers between Decatur and Pana on U.S. 51 would never realize that the communities of Assumption and Moweaqua are becoming a powerhouse duo in Illinois pork production.
- [The Pig Site](#), “CME: Confluence of Factors Pressuring Prices Lower”  
The down move in the hog complex in the last few days has been quite ferocious and it is hard to point to one single factor that would explain why market participants have wiped off \$7.5 (-13 per cent) since September 1. Rather, there seems to be a confluence of factors that, at least for the moment, continues to pressure prices lower.

- [Ag Canada](#), “Hog Profits Disappear as U.S. Futures Crash”  
A sharp drop in the U.S. hog futures over the past week is cutting into the profitability of the Canadian sector as well, with a turn higher unlikely in the near term.
- [AgriLand](#), “43% of farmers plan to expand their farms over the next one to three years”  
Some 43% of farmers plan to expand their farms over the next one to three years, a Bank of Ireland Agri Pulse survey has found. A similar number, 44%, indicated that they would prefer the farm to remain the same size, while 13% intended to scale down.

## Social



@A\_Kelly\_ISPCA shared an article saying “there is nothing good about live exports” in response to Irish farmers welcoming the first live cattle exports to Turkey.

- Followers: 4,744
- Retweets: 4
- Likes: 3

## Animal Welfare

### News

- [Bay News 9](#), “Decapitated Animals Found near Courtney Campbell Causeway”  
City police are investigating after reports of decapitated animal bodies in the area of the Courtney Campbell Causeway. Next to the animals, Hayworth pointed out flowers, fruits, and even coins. Hayworth says it appears to be some type of animal sacrifice ritual.

## Social



@Cowspiracy shared an [article](#) stating the Danish Council on Ethics has released its report on beef as a ‘climate damaging food.’

- Followers: 42,721
- Retweets: 55
- Likes: 62

## Pork Safety

### News

- [TIME](#), “You Asked: Should I Be Nervous About Lab-Grown Meat?”  
Considering the current zeitgeist for simple, unadulterated foods, the concept of lab-grown beef, chicken, pork or fish might seem out of touch. But while unanswered questions remain, there are reasons to be excited about artificial or “cultured” meat, the term favored by those who produce it.
- [National Hog Farmer](#), “Don’t Ignore Nutrient Management Plans during Fall Rush”  
Don’t forget your manure nutrient management plans in the haste of bringing in the fall crop and hauling manure onto your fields.

## Social

- *No influential social news mentions.*

## **General Pork News**

### **News**

- [Agri-Pulse](#), “Former Ag Secretaries Debate Who’s Best for White House”  
Block and Glickman spoke for Trump and Clinton, respectively, during an informal debate today before members of the United Fresh Produce Association.
- [The Huffington Post](#), “The Presidential Candidates Still Aren’t Talking About Our Food Supply”  
The food we eat matters for our economy, our health and our environment. Do Clinton or Trump agree?

# National Pork Board

## Daily Monitoring Report

October 25, 2016

### Daily Highlights

**Nielson** included discussions on the complication of labeling of meat products with added dimensions of livestock care and processing. **KSFY-TV** reported the Sioux Center Police are investigating a fire that destroyed a hog confinement outside Sioux Center, IA, Monday morning. **The Pig Site** stated a new animal welfare label is being launched in Denmark next spring, allowing shoppers to identify the level of welfare the pig received. **Watt Ag Net** included a report stating there is a great deal of variation between EU member states in sales of antibiotics for farm animals. **Fox Business** discussed why meat processor Tyson Foods invested in a meat-alternative: plant-based food products. And **The New York Times** featured an op-ed on the flooding of North Carolina's hog lagoons following Hurricane Matthew.

The majority of coverage since Monday, October 24 focused on animal welfare. Overall relevant coverage totaled 249 articles.

### Antibiotics

#### News

- [Watt Ag Net](#), "Europe Makes Progress in Tackling Antibiotic Resistance"  
While evidence has been found that the plan to reduce antibiotic resistance in the European Union is making progress, another report published October 24 finds that there is a great deal of variation between EU member states in sales of antibiotics for farm animals.
- [Food Navigator](#), "The Antibiotic-Free Dilemma: How to Tap into the Trend without Implying Conventional Meat is Bad?"  
Consumer interest in antibiotic-free meat is rising and British pork processor Karro is upping investment. But how can you promote a premium antibiotic-free range without giving the message that the rest of your products are bad? "It's a challenge," it says.
- [AgriMarketing](#), "Vet Feed Directory Survival Strategy Webinars Now Available to Watch Online"  
Each VFD Survival webinar focused on a specific segment of the industry - veterinarians, feed distributors, and swine, beef, dairy, poultry or aquaculture producers - with key VFD information for each audience.

#### Social



[@pewtrusts](#) re-shared an [article](#) stating more than one in three antibiotic labels still don't meet FDA's standards for 'judicious use' in food animals.

- Followers: 21,337
- Retweets: 4
- Likes: 3

## Foreign Animal Disease

### News

- [The Pig Site](#), “New ASF Cases Reported in Ukraine”  
Another three outbreaks of ASF have been reported in Ukraine. One outbreak has affected two pigs at a backyard unit in Kalcheva, Odessa. The unit is located close to Moldova and Romania.

### Social



[@STEMAlliance](#) shared a [video](#) from the Academy's archives about a scientist developing a vaccine for swine H1N1 influenza.

- Followers: 5,249
- Retweets: 2
- Likes: 2

## Producer Economic Viability

### News

- [Fox Business](#), “Why Did Tyson Foods Just Invest in a Fake-Meat Maker?”  
Meat processor Tyson Foods is taking just a small bite out of alternative-meat maker Beyond Meat, but it is a big deal for the future of plant-based food products.
- [The Pig Site](#), “US Pork Supply Glut Dampens Global Outlook”  
Abundant supply and looming slaughter capacity constraints in the US are pressuring global pork prices, a situation exacerbated by slowing Chinese imports, according to the Rabobank Global Pork Quarterly Q4 2016 report.
- [National Hog Farmer](#), “Lean Hog Futures: Searching for Something Positive”  
During times like these, while not willing to abandon positions established with the trend, especially hedge positions that are protecting hogs, open your mind to the positive fundamentals facing the market.
- [American Ag Radio Network](#), “Updated GIPSA Rules Move on Minus Support from Livestock Groups”  
Livestock groups such as the National Cattlemen's Beef Association, the National Pork Producers Council, the National Chicken Council and the North American Meat Institute may not support the proposed changes, but last week USDA forwarded a long pending update to the GIPSA Act onto the White House's Office of Management and Budget for economic evaluation.

### Social



[@thepigsite](#) shared an [article](#) stating US pork supply glut has dampened the global outlook.

- Followers: 3,287
- Retweets: 2
- Likes: 0



## Animal Welfare

### News

- [KSFY-TV](#), “Sioux Center Police Investigating Hog Confinement Fire”  
The Sioux Center Fire Department is investigating the cause a fire that destroyed a hog confinement outside Sioux Center, Iowa, Monday morning.
- [Nielsen](#), “Weighing Consumers’ Growing Appetite for ‘Clean’ Meat Labeling”  
When it comes to meat, discussions include the added dimensions of livestock care and processing, complicating the labeling of meat products well beyond what’s needed for an organic banana or a package of fiber cereal.
- [The Pig Site](#), “New Pork Label Shows Level of Animal Welfare”  
A new Ministry of Environment and Food animal welfare label, which is being launched in Denmark next spring, will allow shoppers to identify the level of welfare the pig received.
- [OpEd News](#), “You Don’t Have to Like Animals to Be against Factory Farming: It Harms Workers and Pollute Too”  
But factory farms are also the nation’s biggest polluters, contaminating soil, air and water. For example, Tyson Foods alone released 104.4 million pounds of toxic pollutants into waterways between 2010 and 2014 according to a report by Environment America.
- [Daily Mail](#), “The Stomach-Turning Truth about Your Supermarket Meat”  
Legal techniques used by penny-pinching meat factories are revealed. Water pumped into everything from chicken breasts to salami and bacon. A special enzyme is used to glue scrappy leftover bits of meat together. Phosphate chemicals are pumped into the meat to make it heavier.
- [NZHerald](#), “New Footage of Calf Abuse on Dairy Farms”  
An investigation has been launched after new hidden camera footage emerged of bobby calves being mistreated on dairy farms.
- [The Pig Site](#), “Blunt Force Trauma Ensures Humane Pig Euthanasia, says Veterinary Council”  
The Veterinary Council with the Canadian Pork Council says, despite public concerns, the use of blunt force trauma to euthanize pigs is an effective and humane method of ensuring animal welfare.

### Social



[@MercyForAnimals](#) shared a new MFA undercover video exposing the “sadistic truth behind turkey farming. Prepare yourself.”

- Followers: 236,638
- Retweets: 182
- Likes: 81

## Pork Safety

### News

- [The New York Times](#), “North Carolina’s Noxious Pig Farms”  
The waste can carry E. coli, salmonella, cryptosporidium and other bacteria that can lead to serious illness or death if they spread to humans. After Hurricane Matthew deluged North Carolina this month, at least 14 of the lagoons flooded.
- [Farming Life](#), “New Fogger to Apply Promist in Livestock Houses”  
Provita have sourced a suitable fogger for applying Promist in livestock houses ADVERTISEMENT to aid control of pneumonia in cattle.

### Social



Social media personality [@McMannofthepeople](#) tweeted the hashtag #SourcesHaveConfirmed “that no one cares about the scientific findings that bacon causes cancer.”

- Followers: 5,907
- Retweets: 3
- Likes: 3

## General Pork News

### News

- [Pork Network](#), “Big Ag Isn’t the Bad Guy”  
In a recent post for the Environmental Defense Fund, Senior Vice President of Ecosystems David Festa, argued that agriculture producers, including big ag companies, weren’t the bad guy.

# National Pork Board

## Daily Monitoring Report

November 14, 2016

### Daily Highlights

**National Hog Farmer** stated hog barn filtration systems can only prevent the spread of diseases to swine herds if the systems are thoroughly inspected on a daily basis. **Futurism** reported lab-grown meat could drastically reduce emissions, save water and free up space on earth – and it's already been grown and eaten to positive acclaim. **Seeker** discussed the compelling vision of a world where agriculture makes smarter use of fewer resources, providing more food with less carbon. The **World Health Organization** led a Q&A on why vaccination is important for addressing antibiotic resistance. And **Missouri Farmer Today** stated ag groups are divided over the USDA's Farmer Fair Practices Rules.

The majority of coverage over the weekend focused on pork safety and producer economic viability. Overall relevant coverage totaled 186 articles.

### Antibiotics

#### News

- [The Dairy Site](#), "Medics Urge More Action on Antibiotics in Farming"  
Fifteen of the UK's most senior medics have called on the government to tackle "routine misuse of antibiotics in UK farming", in a letter published in The Telegraph to mark the start of World Antibiotic Awareness Week.
- [World Health Organization](#), "Why is Vaccination Important for Addressing Antibiotic Resistance?"  
Vaccinating humans and animals is a very effective way to stop them from getting infected and thereby preventing the need for antibiotics. Making better use of existing vaccines and developing new vaccines are important ways to tackle antibiotic resistance and reduce preventable illness and deaths.

#### Social



[@AppleNews](#) re-shared an [article](#) wondering if diners are interested in the McDonald's menu getting healthier with kale salads and antibiotic-free chicken.

- Followers: 118,020
- Retweets: 7
- Likes: 28

### Foreign Animal Disease

#### News

- [The Baltic Course](#), "African swine fever reaches Talsi, Babite and Ikšķile regions"  
The Food and Veterinary Service inspectors reported 24 new African swine cases in wild boar

population this week, including in three regions where the disease had not been previously reported - Talsi, Babite and Ikskile regions, the Food and Veterinary Service told LETA.

## Social

- *No influential social news mentions.*

## Producer Economic Viability

### News

- [Seeker](#), “Agriculture is a Victim of (and the Solution to) Climate Change”  
The compelling vision is of a world where agriculture makes smarter use of less resources, providing more food with less carbon.
- [Futurism](#), “How Lab-Grown Meat Could be the Future of Food”  
Lab-grown meat could drastically reduce emissions, save water, and free up space on earth — and it's already been grown and eaten to positive acclaim. For now, lab-grown meat remains incredibly expensive to produce, but more technological development could bring the food sooner to our dinner tables than we might think.
- [Farming UK](#), “Value of UK pork exports grows, despite falling volumes”  
The value of pork exported from the UK during September was up 16% on the year, reaching the value of £21.7 million, according to AHDB figures.

## Social



[@RedHotSquirrel](#) shared an [article](#) stating the value of pork exported from the UK during September was up 16% on the year, reaching a value of £21.7million.

- Followers: 19,623
- Retweets: 14
- Likes: 15

## Animal Welfare

### News

- [North Queensland Register](#), “Pig Dumping a Potential Disease Disaster”  
While checking cattle between Cloncurry and Mount Isa, a local property owner discovered four dead, feral pigs that had been dumped on his property.
- [Detroit Free Press](#), “Farm Network May Hold Secret to Sustainable Meat”  
In this system, farmers no longer need to till their fields and the cost to plant cover crops in between production is lower than the cost of chemicals. But there are more widespread benefits, too.

## Social



[@MercyForAnimals](#) re-shared an [article](#) discussing MFA’s achievements in ending abuse of animals by the meat, dairy and egg industries.

- Followers: 240,835
- Retweets: 50
- Likes: 81

## **Pork Safety**

### **News**

- [National Hog Farmer](#), "Hog Barn Filtration System Audits Imperative to Disease Control"  
Filtration systems can only prevent the spread of diseases to swine herds if the systems are thoroughly inspected on a daily basis.
- [Phys.org](#), "Enhancing Livestock Immunity in a Changing Climate"  
Management and nutritional strategies are needed to protect livestock from heat stress resulting from climate change, according to a review paper published in the *Pertanika Journal of Tropical Agricultural Science*.
- [Daily Mail](#), "Britons still refuse to give up sausages - despite health chiefs warning of the cancer risks associated with eating processed meats"  
More than one in ten Britons have confessed to eating two packs a month. A 2015 report warned processed meat increases the risk of bowel cancer. Survey of 2,000 not prepared to give up sausages - eating 16 a month.
- [National Hog Farmer](#), "The Bugs Stop Here"  
Raising a healthy pig comes down to the pig's gut health. The gut contains 70% of his immune system, which makes it a crucial barrier to keep out pathogens and toxins. The investment you make in nutrition to support gut health can pay off by helping to set up the pig for lifetime production and performance.

### **Social**

- *No influential social news mentions.*

## **General Pork News**

### **News**

- [Pork Network](#), "Oklahoma Reflects on 'Right to Farm' Loss"  
The measure would have allowed courts to rule on state and local laws regulating agricultural activities passed after Dec. 31, 2014. It was intended to allow farmers to defend themselves in the face of unjust laws.
- [Missouri Farmer Today](#), "Ag Groups Divided Over USDA Rules"  
The "Farmer Fair Practices Rules" will seek to help balance the relationships between livestock producers, swine production contract growers and poultry growers and the packers, swine contractors and live poultry dealers with whom they interact.

# National Pork Board

## Daily Monitoring Report

January 18, 2017

### Daily Highlights

**Brownfield Ag News**, **KMZU-FM** and **US Ag Net** all discussed how hog producers are handling the new VFD antibiotic rules implemented at the beginning of the month. **Swine Web** stated a microbiome has been identified as a top research priority in improving the health of pigs while reducing the pork industry's reliance on antibiotics. **Daily Monitor** reported the first cases of swine fever were first reported in Kimanya-Kyabakuzi Division last week, where a prominent piggery farm lost over 300 pigs earlier this month. And **Food Safety News** discussed the idea of lab meat or cultured meat, which researchers and industry leaders prefer to call "clean meat."

The majority of coverage since Tuesday, January 17 focused on antibiotics, followed by producer economic viability. Overall relevant coverage totaled 393 articles.

### Antibiotics

#### News

- [Big Think](#), "A Woman Just Died from an Infection No U.S. Antibiotics Could Beat"  
The CDC's report on her case, issued January 13, is sending a chill through the medical world: They've been worried for years about the appearance of a superbug that beats all of our antibiotics. Is this what happened here?
- [The Fish Site](#), "More Funding for UK Antibiotic Resistance Action"  
Funding for the Responsible Use of Medicines in Agriculture (RUMA) Alliance has more than tripled this year in support of a new business plan which will help UK farming play its part in the global drive to reduce antibiotic use across animal and human medicine.
- [Brownfield Ag News](#), "Implementing VFD Changes Difficult for Minnesota Swine Manager"  
The manager of a commercial hog operation in southern Minnesota says implementing changes brought about by the Veterinary Feed Directive (VFD) has been difficult.
- [KMZU-FM](#), "Misconceptions Surrounding VFDs"  
The new requirements for the Veterinary Feed Directive were officially in effect as of January first, but not without misconceptions.
- [US Ag Net](#), "Survey: 95% of Pork Producers Complying with Antibiotic Rules"  
U.S. pig farmers are not only well aware of new federal rules for on-farm antibiotic use, but already are complying.

#### Social



[@GuardianSustBiz](#) re-shared an [article](#) stating new federal rules went into effect banning the use of antibiotics to help livestock gain weight.

- Followers: 141,621
- Retweets: 19
- Likes: 16

## Foreign Animal Disease

### News

- [Daily Monitor](#), “Hundreds of Pigs Die as African Swine Fever Hits Masaka”  
Dr. Kirumira said the first cases of swine fever were first reported at Mwalo Village in Kimanya-Kyabakuza Division last week where Ms. Fiona Kataama, a prominent piggery farmer lost over 300 pigs early this month.

### Social



[@DailyMonitor](#) shared an [article](#) stating hundreds of pigs have died as African swine fever hits Masaka.

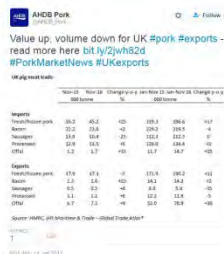
- Followers: 361,910
- Retweets: 5
- Likes: 2

## Producer Economic Viability

### News

- [Food Safety News](#), “Clean, Safe, Humane – Producers Say Lab Meat is a Triple Win”  
Turns out that the meatball had been produced in a lab by using cells extracted from a live cow and grown into tissues and then muscle. Some people refer to it as lab meat or cultured meat, but researchers and industry leaders prefer to call it “clean meat.”
- [The National Provisioner](#), “Pork Aplenty: Large Supply, Strong Demand”  
America’s pig farmers produced a record-breaking number of market hogs in 2016, resulting in ample supplies of pork at the retail meat case and in restaurants. Today’s large hog supplies are being driven by both a growth in the breeding herds and increased productivity.
- [Michigan Farm News](#), “Hog Futures Showing Gains?”  
Michigan numbers didn’t follow the national patterns. Breeding numbers were 110,000, the same as they have been as long as I can remember. Market hogs at a million head and total hogs at 1.1 million head were both down 1 percent from a year ago.

### Social



[@AHDB\\_Pork](#) shared an [article](#) and chart stating the volume of UK pork exports continued to decline in November.

- Followers: 2,079
- Retweets: 1
- Likes: 0

## **Animal Welfare**

### **News**

- [Triple Pundit](#), “Chipotle Rolls out New Animal Welfare Standards for Chickens”  
Chipotle Mexican Grill has improved its animal welfare standards for chickens yet again. And for a company that buys about 140 million pounds of chicken a year, a commitment to better standards can improve the lives of many chickens in the U.S.
- [Daily Mail](#), “Thousands Demand Lifting Ban on Bull-Taming Sport in India”  
Thousands of people were camping on a beach in southern India on Wednesday demanding a ban be lifted on the traditional sport of bull-taming.

### **Social**

- *No influential social news mentions.*

## **Pork Safety**

### **News**

- [Swine Web](#), “Research Suggests Healthy Gut Bacteria Guts Can Be Transferred from Pig to Pig”  
Swine Innovation Porc has identified the microbiome as a top research priority in improving the health of pigs while reducing the pork industry’s reliance on antibiotics.
- [Express](#), “How Much Red Meat Should We Eat? Consume this Much a Week to Avoid Risk of Heart Disease”  
Eating too much red meat has been linked to an increased risk of bowel cancer, heart disease, and some people have even claimed it’s linked to cancer - so how much beef, lamb and pork should we be eating?

### **Social**

- *No influential social news mentions.*

## **General Pork News**

### **News**

- [Swine Web](#), “State of the Art Hog Farm in Nebraska”  
The local farmer is working to create his dream farm and has joined the Global Animal Partnership in his effort to develop a state of the art hog farm that exceed all industry standards when it comes to providing good animal welfare for his hogs.



# National Pork Board

## Daily Monitoring Report

October 15, 2015

### Daily Highlights

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The Seattle Times hosted a piece by Carrie Dennett, MPH, RDN, CD, which discussed the threat of antibiotic resistance and FDA guidelines in place to address antibiotic use in livestock. Huffington Post reported on the future of food production revolving around lab grown meat. Reuters shared a news release on the Somma Food Group launch of an antibiotic-free and cage-free chicken product released to the largest school district in Georgia. The New Yorker reported on the continued controversy around the revisions to the 2015 Dietary Guidelines. Food advocate Mark Bittman announced his new role with the Union of Concerned Scientists as a Fellow of the Food and Environment Program.

The most relevant coverage continued to focus on antibiotics related to California Senate Bill 27, with overall neutral tone.

### Antibiotics

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Estimated online news mentions related to livestock industry: 357

#### National

- [Reuters](#), “Somma Food Group Launches Chickentopia™ in partnership with Gwinnett County Public Schools,” October 14, 2015

Somma Food Group launched a new antibiotic-free, cage-free chicken product, Chickentopia Drumstix, in Gwinnett County Public Schools during National School Lunch Week.

- Article is industry specific

#### Trade/Other

- [Seattle Times](#), “FDA aims to halt antibiotic resistance at the source: your food,” October 14, 2015

A registered dietitian discussed the threat of antibiotic resistance and the FDA’s moves to reduce use in livestock.

- Article is industry specific

- [WNAX Radio 570](#), “Pork Leader Questions Antibiotics Bill,” October 14, 2015

South Dakota Pork Producers Council President Lester Moeller defended responsible livestock production by saying Gov. Brown’s statement on antibiotic use in livestock is not true.

- Article is pork specific

## Social



[@ConsumersUnion](#) shared a [link](#) to a U.S. News and World Report article about California Gov. Jerry Brown signing Senate Bill 27 to limit use of antibiotics in livestock.

- Followers: 10,772
- Retweets: 14
- Favorites: 5

## Foreign Animal Disease

Estimated online news mentions related to livestock industry: 34

### National

- [Bloomberg](#), "Protecting the nation from animal diseases for 150 years," October 15, 2015  
October 15, marks 150 years of government veterinary services in the United Kingdom; the service has combatted diseases like foot-and-mouth disease and secured multi-million pound trade deals.
  - Article is industry specific

### Trade/Other

- *No influential trade news mentions.*

### Social

- *No influential social media mentions.*

## Market Preparedness

Estimated online news mentions related to livestock industry: 50

### National

- *No influential national news mentions.*

### Trade/Other

- *No influential trade news mentions.*

### Social

- *No influential social media mentions.*

## Ethics of Meat Production

Estimated online news mentions related to livestock industry: 391

*Ethics of Meat Production: 0 online news mentions*

#### **National**

- *No influential national news mentions.*

#### **Trade/Other**

- *No influential trade news mentions.*

#### **Social**

- *No influential social media mentions.*

*Animal Welfare: 212 online news mentions*

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#### **National**

- *No influential national news mentions.*

#### **Trade/Other**

- *No influential trade news mentions.*

#### **Social**

- *No influential social media mentions.*

*Modern Pig Production Methods: 52 online news mentions*

---

#### **National**

- *No influential national news mentions.*

#### **Trade/Other**

- *No influential trade news mentions.*

#### **Social**

- *No influential social media mentions.*

*Food Transparency/Trends: 54 online news mentions*

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#### **National**

- [Huffington Post](#), **"The Fascinating Case For Eating Lab-Grown Meat," October 14, 2015**  
As lab grown meat is seen by some as the future of food production, the price to produce the meat products may be low, but the purchase price does not show the same trend.
  - Article is industry specific

#### **Trade/Other**

- [Union of Concerned Scientists](#), **"Wanna Fix the Food System? Science Can Help," October 13, 2015**  
Food activist Mark Bittman, in his new role as Fellow of the Food and Environment Program for the Union of Concerned Scientists, discussed the need for science and leadership to tackle food issues.
  - Article is industry specific

## Social



[@thedailymeal](#) shared a [link](#) to a Daily Meal article about the Obama Administration banning pork from being served in federal prisons.

- Followers: 98,007
- Retweets: 1
- Favorites: 2

**Sustainability/Environment:** 73 online news mentions

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### National

- *No influential national news mentions.*

### Trade/Other

- *No influential trade news mentions.*

### Social

- *No influential social media mentions.*

## Dietary Guidelines

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Estimated online news mentions related to livestock industry: 214

### National

- [The New Yorker](#), "What the Government's Dietary Guidelines May Get Wrong," October 14, 2015  
Despite the controversy following an article from the *British Medical Journal*, which criticized America's Dietary Guidelines, people continue to raise concerns as USDA Sec. Tom Vilsack and HHS Sec. Sylvia Mathews work to revise the guidelines by the end of 2015.
  - Article is industry specific

### Trade/Other

- *No influential trade news mentions.*

### Social

- *No influential social media mentions.*

## Human Health & Safety Concerns

---

Estimated online news mentions related to livestock industry: 213

### National

- *No influential national news mentions.*

#### Trade/Other

- [Prairie Farmer](#), "While red meat consumption declines, obesity rates rise," October 14, 2015  
Dr. Eric Berg of North Dakota State University asserted that obesity rates have doubled, while red meat consumption has declined, negating the argument that red meat causes obesity in a video from the North American Meat Institute.
  - Article is industry specific

#### Social

- *No influential social media mentions.*



# National Pork Board

## Daily Monitoring Report

August 4, 2015

### Daily Highlights

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AgriNews reported on Chris Hodges speaking about the research being conducted on consumer demand and the use of antibiotics in pork production at the annual Illinois Pork Producer's Summer Visioning Session. Reuters reported a federal judge's ruling against an Idaho law that banned documentation of animal abuse at livestock operations, ruling that it violated freedom of speech and other constitutional rights. Consumer Affairs reported on the USDA's Food and Safety Inspection Service warning against the spread of Salmonella and issued four tips consumers should keep in mind when roasting a pig.

The most relevant coverage focused on human health and safety concerns due to conversation around foodborne illness, with overall neutral tone.

### Antibiotics

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Estimated online news mentions related to livestock industry: 304

#### National

- *No influential national news mentions.*

#### Trade/Other

- [Inside Bay Area Opinion](#), "Guest commentary: Animal antibiotics bill has a flaw that must be fixed," August 3, 2015  
Consumers believe Senate Bill 27 has a loophole that allows for the daily, routine use of antibiotics on animals that are not sick.
  - Article is industry specific
- [AgriNews](#), "Antibiotics, trade challenge pork industry," August 3, 2015  
Chris Hodges spoke about the research being conducted on consumer demand and the use of antibiotics at the annual Illinois Pork Producer's Summer Visioning session.
  - Article is pork specific

#### Social



News organization [@Esquire](#) posted an article about Perdue cutting antibiotics in its chicken.

- Followers: 318,368
- Retweets: 7
- Favorites: 3

## Foreign Animal Disease

Estimated online news mentions related to livestock industry: 199

### National

- *No influential national news mentions.*

### Trade/Other

- [The Pig Site](#), "More pigs dead from African swine fever in Russia," August 4, 2015  
Four new outbreaks of African swine fever were detected in Kurskaya and Bryanskaya in west Russia, bringing the total to 18 cases.
  - Article is pork specific
- [allAfrica](#), "Botswana: Ralotsia suspects sabotage in FMD outbreak," August 2, 2015  
The Minister of Agriculture suspected the outbreak of foot-and-mouth disease at Hainavelt farms in Botswana was deliberately spread.
  - Article is industry specific
- [The Jakarta Post](#), "RI to set up quarantine islands," August 4, 2015  
The Indonesian Agriculture Ministry assessed a plan to set up quarantine islands to hold imported heifers and feedlot cattle suspected of carrying a foreign disease.
  - Article is industry specific
- [EurekAlert](#), "Cattle movement estimation study sheds light on disease risk," August 3, 2015  
A researcher at Kansas State University developed a technique that estimates the movement of beef cattle to determine the risk of disease.
  - Article is industry specific

### Social



Global pig news organization [@thepigsite](#) posted an article about an outbreak of African swine fever in Lithuania.

- Followers: 12,988
- Retweets: 0
- Favorites: 1

## Market Preparedness

Estimated online news mentions related to livestock industry: 93

### National

- *No influential national news mentions.*

### Trade/Other

- *No influential trade news mentions.*



## Social

- *No influential social media mentions.*

## Ethics of Meat Production

Estimated online news mentions related to livestock industry: 668

*Ethics of Meat Production: 3 online news mentions*

### National

- *No influential national news mentions.*

### Trade/Other

- *No influential trade news mentions.*

## Social

- *No influential social media mentions.*

*Animal Welfare: 534 online news mentions*

### National

- [Reuters](#), "Federal judge strikes down Idaho law banning documentation of animal abuse," August 3, 2015  
A federal judge ruled against an Idaho law that banned documentation of animal abuse at livestock operations, ruling that it violated freedom of speech and other constitutional rights.
  - Article is industry specific
  - Article also picked up by: Bloomberg, Washington Times, LA Times, Yahoo! News, etc.
  - Estimated pickups: 125

### Trade/Other

- [The Daily Beast](#), "Found in the Whole Foods Dairy-Alternative Aisle: a pack of hen-rescuing 'Animal Liberation' demonstrators," August 3, 2015  
Animal welfare demonstrators staged a nonviolent demonstration to disrupt the alleged mass violence against animals across the United States in a Whole Foods in Washington D.C.
  - Article is industry specific

## Social



Public media food blog [@bayareabits](#) posted an article about animal welfare groups' protest against dehorning dairy cows.

- Followers: 78,034
- Retweets: 1
- Favorites: 0



## Modern Pig Production Methods: 39 online news mentions

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### National

- *No influential national news mentions.*

### Trade/Other

- [North Queensland Register](#), "Phase out of sow stalls on target," August 4, 2015  
Australian Pork Limited released a report that the voluntary move by the Australian pork industry to phase out the use of sow stalls by 2017 reached the 70 percent mark.
  - Article is pork specific

### Social

- *No influential social media mentions.*

## Food Transparency/Trends: 46 online news mentions

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### National

- *No influential national news mentions.*

### Trade/Other

- [Mercola](#), "Chicken farmers gagged and swindled by Giant Poultry processors," August 4, 2015  
John Oliver's HBO episode of "Last Week Tonight" presented chicken farmers who told a story of hardship and financial ruin, despite the propaganda that poultry processors feature.
  - Article is industry specific

### Social

- *No influential social media mentions.*

## Sustainability/Environment: 46 online news mentions

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### National

- *No influential national news mentions.*

### Trade/Other

- [Grist](#), "With lab-grown meat, can we have our animals and eat them too?" August 3, 2015  
Researchers assessed the environmental impacts of mass-producing cultured meat and found that it would be much more sustainable than producing more cows.
  - Article is industry specific

### Social



Animal rights organization [@MercyForAnimals](#) posted an article about the hog manure pit fumes that killed a father and son.

- Followers: 136,919
- Retweets: 38
- Favorites: 18

## Dietary Guidelines

Estimated online news mentions related to livestock industry: 196

### National

- [Men's Journal](#), "Is red meat bad for you?" August 3, 2015  
According to some dietary experts, red meat is both good and bad for you, and now the new Dietary Guidelines constitute that ideal amount you should consume.
  - Article is industry specific

### Trade/Other

- *No influential trade news mentions.*

### Social

- *No influential social media mentions.*

## Human Health & Safety Concerns

Estimated online news mentions related to livestock industry: 475

### National

- *No influential national news mentions.*

### Trade/Other

- [PHYS](#), "Study describes red meat's cancer-causing mechanism in the colon," August 3, 2015  
A group of researchers in The Netherlands published a study that suggests the gut microbiota found in the colon is pivotal to the breakdown of heme in red meat that could lead to cancer.
  - Article is industry specific
- [Consumer Affairs](#), "Feds warn of possible Salmonella contamination in pork," August 3, 2015  
The USDA's Food and Safety Inspection Service warned against the spread Salmonella and issued four tips consumers should keep in mind when roasting a pig.
  - Article is pork specific
- [Meatingplace](#), "CDC announced funds to track foodborne diseases," August 4, 2015  
The CDC awarded \$110 million to help states and communities strengthen their capacity to track and respond to infectious diseases.
  - Article is industry specific

### Social



Online food organization [@Eater](#) posted an article about the affect avian influenza is have on egg prices.

- Followers: 147,761
- Retweets: 5
- Favorites: 3

# National Pork Board

## Daily Monitoring Report

November 26-December 1, 2014

### Daily Highlights

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The Associated Press reported on New Jersey Governor Chris Christie's veto of a bill to ban gestation crates in the state, causing more people to speculate his presidential aspirations for 2016. CNN and Bloomberg also reported on the topic. The Guardian reported on the new avian influenza outbreak on a poultry farm in the western part of the Netherlands and noted the strain has yet to be confirmed. Global Meat News said Danish and German pork containing MRSA was detected during random checks by Sweden's national veterinary inspectors. PBS said smaller farms have a hard time making profit when they are competing against the likes of large factory farms.

Most relevant coverage derived from mentions about health concerns, primarily news of avian influenza in Europe, with overall neutral coverage.

### Animal Welfare—General, housing, transport

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Estimated online news mentions related to livestock industry: 332

#### National

- [The Associated Press](#), **"Christie vetoes politically charged pig crate bill," November 29, 2014**  
Republican Governor Chris Christie vetoed a politically charged bill that would have banned the use of gestation crates in New Jersey, a move to appease Iowa voters.
  - Article is pork specific
- [CNN](#), **"In controversial move, Chris Christie vetoes pig crate ban," November 28, 2014**  
New Jersey Governor Chris Christie's veto to ban gestation crates sparked more speculation about his presidential aspirations.
  - Article is pork specific
- [Bloomberg](#), **"Christie Spurns Pig-Crate Pleas From Danny DeVito, Jon Stewart," November 28, 2014**  
New Jersey Governor Chris Christie said the measure to ban gestation crates was unnecessary and the devices should be regulated by state agriculture officials, not lawmakers.
  - Article is pork specific

#### Trade/Other

- [NJ.com](#), **"N.J. politics roundup: Christie pig bill veto, immigration poll, and more," December 1, 2014**  
On Friday, New Jersey Governor Chris Christie vetoed a controversial bill that would have banned the use of gestation crates in New Jersey.
  - Article is pork specific



- [Global Meat News](#), "Welfare and sustainability of pig industry discussed in Brazil," December 1, 2014  
Animal welfare experts met in Brazil to discuss implementation of sustainability solutions focused on group-housing of sows and how improved welfare can benefit the industry.
  - Article is pork specific
- [Washington Examiner](#), "Chris Christie vetoes gestation crate bill," November 29, 2014  
Governor Chris Christie, on Friday, vetoed the bill to ban gestation crates in New Jersey, was accused by his opponents of vetoing it due to his presidential aspirations.
  - Article is pork specific

## Social Media



Food activist [@tomcolicchio](#) discussed Jon Stewart's segment on The Daily Show about the gestation crate ban to 481,656 followers.

## Beta-Agonists

Estimated online news mentions related to livestock industry: 67

### National

- *No influential national news mentions.*

### Trade/Other

- *No influential trade news mentions.*

## Social Media



Online petition platform [@Change](#) shared information on ractopamine and its safety to humans and animals to 914,532 followers.

## Antibiotics

Estimated online news mentions related to livestock industry: 388

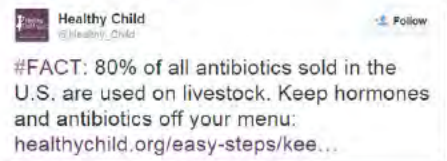
### National

- *No influential national news mentions.*

### Trade/Other

- *No influential trade news mentions.*

## Social Media



Nonprofit [@Healthy\\_Child](#) shared a statistic about antibiotic use in livestock to 41,682 followers.

## Health/Safety Concerns

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Estimated online news mentions related to livestock industry: 683

### National

- [The Guardian](#), "New bird flu case reported in Netherlands," November 30, 2014  
Dutch authorities reported a new avian influenza outbreak on a poultry farm in the western part of the Netherlands, but have not yet confirmed which strain was detected.
  - Article is industry specific
- [Business Insider](#), "Why Europeans Don't Refrigerate Eggs But Americans Do," December 1, 2014  
In the United States, the USDA requires graded eggs to be washed and sprayed with chemical sanitizer before they are sold to the public to reduce the risk of Salmonella infection.
  - Article is industry specific

### Trade/Other

- [National Hog Farmer](#), "Stop Chinese Chicken in School Lunches," November 30, 2014  
Consumer and food safety groups have asked Congress to not allow processed poultry from China in school meals by denying USDA funds to purchase the products.
  - Article is industry specific
- [Global Meat News](#), "Random tests find MRSA in Danish and German pork in Sweden," November 27, 2014  
Pork containing MRSA was detected during random checks by Sweden's national veterinary institute inspectors.
  - Article is pork specific
- [Meatingplace](#), "If you liked the 'Star Wars's original bar scene, you'll love the USDA's new food safety PSAs," November 27, 2014  
The USDA and the Ad Council launched new public service announcements with instructions for preventing cross-contamination in the kitchen and foodborne illnesses.
  - Article is industry specific

## Social Media



Poultry news site [@WATTPoultry](#) shared information on the avian influenza outbreak in the Netherlands.



## Foreign Animal Diseases

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Estimated online news mentions related to livestock industry: 27

### National

- *No influential national news mentions.*

### Trade/Other

- [Global Meat News](#), “Russia’s import ban – the last thing we need?” November 27, 2014  
Russia imposed restrictions on the United States and neighboring countries due to PEDv, following another ban on the import of United States poultry.
  - Article is pork specific

### Social Media



Animal health news site [@animalpharm](#) said foot-and-mouth disease outbreaks have been reported in Chinese swine.

## Modern Livestock Production

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Estimated online news mentions related to livestock industry: 405

### National

- [PBS](#), “When business is for the birds, small farms strive to survive despite industry pecking order,” November 26, 2014  
Small farms have struggled to compete against factory farms as they rely on Thanksgiving sales for nearly half of their yearly income.
  - Article is industry specific

### Trade/Other

- [Canadian Press](#), “Canada lagging on animal protection: new global index,” November 30, 2014  
Anti-cruelty legislation and weaker transportation laws are the reasons for Canada’s ranking when it comes to animal protection, according to a new global assessment.
  - Article is industry specific
- [Watertown Daily Times](#), “Turkeys bred inhumanely for consumption,” November 26, 2014  
Genetic selection has created a larger, heavier turkey with a rapid growth rate, causing the birds to no longer mate naturally due to their disproportionate size and other health defects.
  - Article is industry specific

### Social Media



Food activist organization [@ForksOverKnives](#) shared an MSNBC article featuring a book about factory farming to 92,442 followers.

## Sustainability

---

Estimated online news mentions related to livestock industry: 21

### National

- [Huffington Post](#), "In Meat-ro: The Curious Case of Cruelty Free Meat," November 28, 2014  
A scientist from Maastricht University said lab-grown meat has the potential to curb harmful environmental and other negative effects of the increasing demand for low cost meat.
  - Article is industry specific

### Trade/Other

- *No influential trade news mentions.*

### Social Media



California Academy of Sciences Director Jon Foley [@GlobalEcoGuy](#) said greenhouse gas emissions can be reduced by eating less meat to 20,141 followers.

## Lutton, Sara - AMS

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**From:** Steve Weiss <steve@nutriquest.com>  
**Sent:** Thursday, May 17, 2018 9:14 PM  
**To:** Gillian Michelakis; Jamie Byrnes; Bill Even  
**Cc:** Rick Berman (berman@bermanco.com)  
**Subject:** RE: Fake Meat/Milk Summit

Jamie and Bill – we landed on a June 14 date in Chicago, and looks like we will have good attendance from our industry as well as beef, poultry and dairy. Hope that someone from the Pork Board can attend.

Thanks,

Steve

**From:** Gillian Michelakis [mailto:michelakis@bermanco.com]  
**Sent:** Thursday, May 17, 2018 8:45 AM  
**To:** jbyrnes@pork.org  
**Cc:** Steve Weiss <steve@nutriquest.com>  
**Subject:** Re: Fake Meat/Milk Summit

Hi Jamie,

I hope you are doing well. I wanted to follow-up on our previous conversation. Will someone from the National Pork Board be able to come Bill's place? We would love to have a representative there from your organization at the meeting.

Please let me know - if it is easier, give me a call 202-463-7100.

Best,  
Gillian

On Fri, May 4, 2018 at 1:49 PM, Gillian Michelakis <[michelakis@bermanco.com](mailto:michelakis@bermanco.com)> wrote:

Hi Jamie,

Thanks for taking a few minutes to chat today. As promised here is the email Rick sent over to Bill.

If there is some one else from the National Pork Board who you feel would be a good fit to attend the meeting - let me know and please fill out the doodle poll with their availability.

Best,  
Gillian

---

We are scheduling a meeting of key leadership among various animal protein sectors to explore the rapidly shifting environment described below. You had previously expressed interest in participating. The possible dates for a meeting at the O'Hare Airport are June 12, 13, 14, 20, and 21. The information below attempts to summarize the issues and impetus for the meeting.



If you are interested in joining us, please fill out the Doodle poll with your availability for a one-day meeting that will begin at 10:30 and conclude by 3:00: <https://doodle.com/poll/a7me7er9zrwke37s>

**Please respond with as many dates as possible.** We will pick the date that is the most popular. I want to stress that you should pick as many dates as will fit your calendar.

I appreciate the efforts of Steve Weiss in helping pull this together.

Rick Berman  
202-463-7100

## **RE: Fake Meat/Milk Meeting**

Fake meat/milk is the activists' silver bullet for animal agriculture.

The idea of fake animal products is attractive not just to vegan advocacy groups such as PETA/HSUS, but also environmentalists and public health activists. Animal rights activists see fake meat/milk as a way to undermine animal agriculture with less killing of animals; environmentalists see it as a solution to air emissions, land use, and manure management issues; and public health activists see it as a solution to antibiotic-resistant bacteria and obesity.

Fake milk, meanwhile, has grown into a \$16 billion global market for non-dairy milk alternatives. Products including almond milk, soymilk and coconut milk are on a steep upward trajectory.

**Left alone, the activists will effectively “sell” fake meat/milk to consumers. However, there are material facts that are not being shared with consumers about the production processes. The public is not aware of the chemical additives that are used in fake protein products, or the environmental and nutritional downsides to some of these products. This is an opportunity for a public education campaign.**

### **Consumer Demand**

- According to the global market research firm Mintel, 1 in 6 American consumers eat meat alternatives at least once a week. Almost 1 in 5 Canadians eat fake meat weekly, and 40 percent of Canadians overall agree that meat alternatives are healthier than meat.
- According to HealthFocus International, 60 percent of U.S. consumers claim to be reducing their consumption of meat-based products.
- China recently signed a \$300 million deal to buy lab-grown chicken from Israel. Israeli companies SuperMeat, Future Meat Technologies, and Meat the Future are developing the products.
- There was a 257 percent rise in new products labelled as vegan-friendly between 2011 and 2016, according to Mintel.

### **Funding**

- Beyond Meat: Raised [\\$145 million](#). Investors include Tyson Foods, General Mills, HSUS, Leonardo DiCaprio, Twitter co-founders, venture capital firms.
- Memphis Meats: Raised \$22 million. Investors include Tyson Foods; Cargill; venture capital firms; billionaires Suzy and Jack Welch, Kyle Vogt, Kimbal Musk, Bill Gates, and Richard Branson
- JUST (Hampton Creek): Raised \$310 million. Investors include HSUS, Silicon Valley funds, and Bill Gates.
- Impossible Foods: Raised \$385 million. Investors include Google, Bill Gates, UBS, and venture capital firms.

## Expanded Offerings

- Beyond Meat: Sold in 19,000 retail stores and restaurants.
- Impossible Burger: Will be in over 1,000 establishments by end of 2018.
- Offerings tend to focus on ground and processed meat products (hamburger, sausage, chicken nuggets) which are more readily “copied” than muscle meat. These products are also more often used as cooking ingredients, representing a potentially larger volume threat of partial replacement in prepared foods (e.g., spaghettis, pizzas, casseroles) than the threat of full replacement in single-ingredient meat dishes.

## Timeline

- Now: Impossible Burger, Beyond Meat, and other plant offerings
- Late 2018: JUST/Hampton Creek
- 2019: Finless Foods (lab tuna)
- 2021: Mosa Meat, Memphis Meats

## Labeling

- Trade groups are pushing for regulatory approval hurdles and label bans.
- France passed a measure in April 2018 stating “meat” and “milk” can only be used on products that come from a living animal.
- Regulatory hurdles may delay entry into the market, but not stop it. Labeling is a stop-gap measure that will help with consumer perception in the short term, but it is not a long-term strategy. Ultimately, demand will be determined by a number of factors, including cost, quality/taste, and whether or not consumers are aware of what comprises fake meat/milk.

## Sample Message Tracks

- Vegetable proteins are processed into fake meat using a gasoline byproduct.
- Meatless products often contain few vegetables, but many additives.
- Soy, the most common ingredient in fake meat, is endocrine-active.
- Soy and almond milk production have significant environmental impact.
- Fake meat is made from fetal bovine serum extracted from the heart of the calf fetus when the mother is pregnant or slaughtered.
- Bio-engineered meats are a 180-degree departure from Americans wanting simpler, less processed foods. According to Mintel, 11% of new products featured a “natural” label in 2015. About 40% of the public thinks GM foods are worse for health—which, while unfortunate in the specific case of GMOs, shows a widespread public skepticism of the intersection of food and technology.

1090 Vermont Avenue, NW Suite 800  
Washington, DC 20005  
T: [202.463.7100](tel:202.463.7100)  
[Michelakis@BermanCo.com](mailto:Michelakis@BermanCo.com)  
[www.BermanCo.com](http://www.BermanCo.com)

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## Lutton, Sara - AMS

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**From:** Claire Masker  
**Sent:** Friday, January 20, 2017 2:38 PM  
**To:** John Johnson; Kevin Waetke  
**Subject:** FW: CONFIRMATION: USFRA: Future Food-Tech Summit - March 29-30  
**Attachments:** image003.jpg; ATT00001.htm; Confirmed Agenda - Future Food-Tech San Francisco 2017.doc; ATT00002.htm

Hi John and Kevin,

Brad talked to me about this opportunity USFRA presented to him. What are your thoughts? The HSUS person on the panel makes me a bit worried. Do we have another suggestion for them – dietician or scientist that could serve on the panel?

Thanks,  
Claire

---

**From:** Brad Greenway [mailto:bpgreen@santel.net]  
**Sent:** Friday, January 20, 2017 1:03 PM  
**To:** Claire Masker <cmasker@pork.org>  
**Subject:** Fwd: CONFIRMATION: USFRA: Future Food-Tech Summit - March 29-30

Claire  
Here is the event we talked about this am. Just got a reminder from Katie. Pass by John and your thoughts also.  
Thank you  
Brad

Sent from my iPhone

Begin forwarded message:

**From:** Katie Foster <[Kfoster@usfraonline.org](mailto:Kfoster@usfraonline.org)>  
**Date:** January 20, 2017 at 12:46:26 PM CST  
**To:** 'Brad Greenway' (b) (6)  
**Cc:** Randy Krotz <[rkrotz@usfraonline.org](mailto:rkrotz@usfraonline.org)>, Paul Spooner <[pspooner@usfraonline.org](mailto:pspooner@usfraonline.org)>  
**Subject:** CONFIRMATION: USFRA: Future Food-Tech Summit - March 29-30

Hi Brad,

Hope you and Peggy are doing well and settled back in from your travels. I wanted to follow up and confirm whether you are able to attend and participate in the **Future Food-Tech Summit on March 29-30 in San Francisco**? Below are details on the panel and confirmed panelist. We will also be having one of our Faces join the event but not on the panel. Can you let us know if you are available and would like to participate?

About the Opportunity

Organizers are offering USFRA the last panelist spot on their **“Creating Consumer Demand for Healthier and More Sustainable Ingredients”** session, which features the following panelists...including a rep from HSUS

- Arif Fazal, Founder and Managing Director, Blueberry Ventures (session chair)
- Susie Weintraub, EVP of Business Excellence, Compass Group North America (speaker)
- Josh Balk, Vice President, Farm Animal Protection, The Humane Society of the U.S. and Founder, Hampton Creek (speaker)
- Jonathan Wolfson, Co-Founder and Chief Executive Officer, TerraVia (speaker)

Potential topics the panel will discuss include:

- How to engender movement in the market: Boosting consumer demand for innovative products and technologies
- The role of the media in creating pull through with consumer groups
- Harnessing millennials’ emotional connection to food to promote prioritisation of health and sustainability
- Addressing the mismatch between consumer demand for natural products and scientific advances in cellular agriculture etc.
- Working with retailers and food service to continue the marketing message
- How is technology being used to change consumer behaviour and create a pull towards healthier food choices?
- Innovation in apps as a tool to influence consumer eating habits
- Can consumer appetites in the Western world be influenced by those of the East? Will Asia’s love of crickets ever truly be matched in the US?

Best,  
Katie

*Katie Foster*

*Executive Assistant to the CEO*

**U.S. Farmers & Ranchers Alliance**

16020 Swingley Ridge Road, Suite 300

Chesterfield, MO 63017

O: 636-449-5037 C: (b) (6)

[kfoster@usfraonline.org](mailto:kfoster@usfraonline.org) / Learn more about USFRA at [www.FoodDialogues.com](http://www.FoodDialogues.com)

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San Francisco, March 29-30, 2017

Day One – March 29, 2017

4:00 Registration

**4:30 Keynote – Silicon Valley Meets Food: How Technology is Changing the Food Business**

- What will be the impact of new leadership on food and climate related policy?
- Appetite for innovation: What are consumers demanding and why?
- The mega trends set to disrupt the global food system
- Trends in the disruptive spending power of millennials and beyond: What will future generations be demanding from food?

**Margaret Dohnalek**, Global Head of Technology Scouting, **PepsiCo**

**4:45 Keynote Investor Debate: Opportunities in Food-Tech Investment**

- Separating hype and reality: Could food-tech become the new clean-tech?
- Next generation trends and technologies: Hot investments and growth for the future
- What can be learned from other sectors' disruptive brands such as Uber and how they changed consumer buying habits?
- Why are big meat companies investing in meat-free alternatives? What impact will this have on product development and uptake?

Session chair:

**TK Pillan**, Partner, **Powerplant Ventures**

Speakers:

**Vishal Vasisht**, Co-Founder, **Obvious Ventures**

**Simon Barnes**, Managing Director, **Tate & Lyle Ventures**

**Lisa Feria**, Chief Executive Officer, **Stray Dog Capital**

**Aki Georgacacos**, Senior Managing Director and Co-Founder, **Avrio Capital**

**Swati Mylavarapu**, Partner, **Kleiner Perkins Caufield & Byers**

**5:30 What Does the Move of Big Tech into the Food Space Mean for Revolutionary Hardware Innovation?**

- What will be the impact of investment and innovation in food by global technology giants?
- The Internet of Things: What are the risks of device interconnectivity and what does it have the scope to achieve?
- What does the kitchen of the future look like and what is its capacity to transform the consumer experience and the food industry?
- Artificial Intelligence, Big Data and food: Viable business opportunity?

Session chair:  
**Spencer Maughan**, Partner, **Finistere Ventures**

#### **6:15 Virtual / Augmented Reality and Food: Progress and Future Opportunity**

**Jinsoo An**, Founder, **Kokiri Lab**

6:30 Networking Drinks Reception

#### **Day Two – March 30, 2017**

8:00 Registration

#### **9:00 Keynote: View from an Industry Giant - A Big Food Perspective on Investing in Innovation**

- Insights into the global food market: International consumer trends shaping the future of food
- The role of VC investment and partnership in accelerating new product development whilst retaining focus on core product lines and brands

**Mary Kay James**, Vice President and General Manager, **Tyson New Ventures**

#### **9:15 The Future of Food Safety: A Food Brand Perspective**

- Risk management and reduction: Chipotle's approach
- Who to involve and how to build a food safety team
- How far can technology go to guarantee food safety throughout the global supply chain?
- What risks are to be expected when importing foods and how can they be mitigated?

**Arturo Tanus**, Food Safety Manager, Produce, **Chipotle Mexican Grill**

#### **9:30 Creating Consumer Demand for Healthier and More Sustainable Ingredients**

- How to engender movement in the market: Boosting consumer demand for innovative products and technologies
- The role of the media in creating pull through with consumer groups
- Harnessing millennials' emotional connection to food to promote prioritisation of health and sustainability
- Addressing the mismatch between consumer demand for natural products and scientific advances in cellular agriculture etc.
- Working with retailers and food service to continue the marketing message
- How is technology being used to change consumer behaviour and create a pull towards healthier food choices?
- Innovation in apps as a tool to influence consumer eating habits
- Can consumer appetites in the Western world be influenced by those of the East? Will Asia's love of crickets ever truly be matched in the US?

Session Chair:  
**Arif Fazal**, Founder and Managing Director, **Blueberry Ventures**

Speakers:

**Susie Weintraub**, EVP of Business Excellence, **Compass Group North America**  
**Josh Balk**, Vice President, Farm Animal Protection, **The Humane Society of the U.S.** and Founder, **Hampton Creek**  
**Jonathan Wolfson**, Co-Founder and Chief Executive Officer, **TerraVia**

#### 10:15 Challenges, Developments and Investment in Cellular Agriculture

- Do consumers really want non-meat burgers that bleed? What is the likelihood of widespread adoption and production of cultured meat?
- Better buying: harnessing the purchasing power of food service companies and retailers
- The business benefits of fermentation: How yield and profit will increase over time to disrupt current manufacturing cycles?
- Commercial viability and financial return: Effecting change at scale and anticipating the timeline from lab to plate
- Is there sufficient investment in the education and training of scientists to sustain development in the field?

Session chair:

**Michael Pellman Rowland**, Senior Vice President, **Morgan Stanley** and Contributor, **Forbes Magazine**

Speakers:

**Gilonne d'Origny**, Chief Development Officer, **New Harvest**  
**Ron Shigeta**, Partner and Chief Science Officer, **IndieBio**  
**Joseph Puglisi**, Professor, Department of Structural Biology and Director, Stanford Magnetic Resonance Laboratory, **Stanford University**

11:00 Networking Coffee

#### 11:30 Will Plant- and Algae-Based Protein Consumption Overtake Animal-Based Foods?

- What's new in plant-based protein? Industry innovation and disruption
- How far away are we from realistic scaling of algae-based proteins production? Work yet to be done
- Nutrition and bioavailability: Limits and opportunities in incomplete plant-based proteins
- What role can food service and retail play in encouraging consumers to make healthier, plant-based choices?
- What will be the long-term impact of plant-based protein development on water and energy supplies? Is this really the sustainable solution?
- Will consumers ever turn their backs on animal-based products and would supply match demand if they did?

Session Chair:

**Bernhard van Lengerich**, former Chief Science Officer, **General Mills**

Speakers:

**David Lee**, COO and CFO, **Impossible Foods**  
**Adam Lowry**, Co-Founder, **Ripple Foods**



**Bruce Friedrich**, Executive Director, **The Good Food Institute**  
**Minh Tsai**, Founder, **Hodo Soy Beanery**

**12:15 Protein Technology Showcase – Early-Mid Stage Technology Entrepreneurs Present 7 Minute Snapshots of their Solutions**

**Uma Valeti**, CEO and Co-Founder, **Memphis Meats**

1:00 Networking Lunch

**2:00 Monetizing the Microbiome: Challenges and Opportunities for Food and Health**

- What might improved understanding of the human microbiome mean for diagnostic technology, product development and human health in 25-30 years' time?
- How much can be achieved within current regulatory restrictions and consumer comprehension?
- How 'personalized' can nutrition really become? What can we expect from microbiome research, technological developments and their impact on individual human health?
- Emerging technology available to translate health data into actionable information on individuals' microbiomes
- Scientific developments and investment opportunities in probiotic supplements

**Professor J. Bruce German**, Director, Foods for Health Institute, Department of Food Science and Technology, **University of California, Davis**  
**Miguel Freitas**, Vice President of Health Affairs, **Dannon**  
**Ganesh Kishore**, Managing Partner, **Spruce Capital Partners**

**2:45 Innovative Ingredients in Food and Health: Personalizing Nutrition**

- Investment opportunities at the intersection between food and health
- Building a bridge between food and medicine: How do we get healthcare communities to think about food and vice versa?
- What emerging functional foods and ingredients are set to disrupt the marketplace?
- Technology's role in supporting people to make healthier choices
- For richer, for poorer: What is the scope for advanced, novel healthy foods making it into mainstream consumption amongst lower income families?
- How can food service and retail influence consumer demand and uptake of functional foods and healthier ingredients?
- What might nutritional intervention in health mean for health in the long term? Is prevention better than the cure?

Session chair:

**Greg McParland**, Senior Investment Manager, **DSM Venturing USA**

Speakers:

**Joshua Anthony**, Vice President of R&D for Global Nutrition, **Campbell Soup Company**

**Alexis Fox**, Chief Empowerment Officer, **Lighter**

**Maisie Ganzler**, Chief Strategy and Brand Officer, **Bon Appétit Management Company**

3:30 Networking Coffee

<b>4:00 Foods as Medicine and Nutrition Technology Showcase: Early-Mid Stage Technology Entrepreneurs Present 7 Minute Snapshots of their Solutions</b>
---

<b>4.45 Global Models for Accelerating Innovation to Market</b>
---

- What models are most effective for commercializing food technologies?
- How can hubs and clusters best engage with the industry?
- What role can cross-sector Open Innovation play?
- What can be learned from how accelerators operate in other regions?

Session chair:

**Andrew Ive**, Managing Director, **Food-X**

Speakers:

**Joseph Lake**, Manager Global Sciences - NEXT Innovation Program and Measurement Systems, **McCain Foods**

**Greg Shewmaker**, Entrepreneur-in-Residence, **Target** and Founder and CEO, **Food+Future**

**Jonathan Berger**, CEO, **The Kitchen**

<b>5.30 Closing Investor Debate: Identifying the Most Exciting Trends and Opportunities for the Future</b>
--

- Building an industry that is fit for the future: Key barriers to growth
- How long will the alternative protein trend last? Does technology have the potential to solve the protein problem?
- Market needs and drivers: What investors are looking for and where they'll be investing next, next year and beyond

Session chair:

**Paul Matteucci**, General Partner, **US Venture Partners**

Speakers:

**Ephraim Lindenbaum**, Founder and Managing Director, **Advance Ventures**

**Dan Phillips**, Managing Director, **Cultivian Sandbox Food & Agriculture Fund**

**Rosemary Ripley**, Managing Director, **NGEN Partners**

**Lila Preston**, Partner, **Generation Investment Management**

**6:15 Summit concludes**

## Lutton, Sara - AMS

---

**From:** Andy Curliss <acurliss@ncpork.org>  
**Sent:** Saturday, January 6, 2018 11:00 AM  
**To:** Bill Even; Neil Dierks  
**Subject:** Re: Review: 'Clean Meat' Could Make Livestock Obsolete - The Wall Street Journal.

Maybe he'll write books.

His book apparently avoids "factory farm" attacking -- but that doesn't stop the reviewer (or WSJ from allowing it.)

More people will see that review than read the book.

For shame.

Andy

Sent from my iPhone

> On Jan 6, 2018, at 10:37 AM, Bill Even <BEven@pork.org> wrote:

>

> I also heard Shapiro just left HSUS.

>

> On Jan 6, 2018, at 9:02 AM, Andy Curliss <acurliss@ncpork.org<mailto:acurliss@ncpork.org>> wrote:

>

>

> Review by Matthew Scully of new book by HSUS' Paul Shapiro.

>

> Review: 'Clean Meat' Could Make Livestock Obsolete

>

> [https://www.wsj.com/article\\_email/review-clean-meat-could-make-livestock-obsolete-1515188032-IMyQjAxMTE4OTAzNjcwNjY0Wj/](https://www.wsj.com/article_email/review-clean-meat-could-make-livestock-obsolete-1515188032-IMyQjAxMTE4OTAzNjcwNjY0Wj/)

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**From:** Dave Pyburn  
**Sent:** Friday, December 22, 2017 11:41 AM  
**To:** NPB Senior Leadership Team  
**Subject:** MeatingPlace Article

I feel that we should comment and correct him on the “antibiotic-laced” statement. What do others think?

**CHEF’S TABLE BY MICHAEL FORMICHELLA**

*Chef Michael Formichella is president and co-owner of Chella Foods.*



## Hot or Not: 2018

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*(The views and opinions expressed in this blog are strictly those of the author.)*

Each year a number of hospitality and industry publications produce their “what’s hot and what’s not” list. They’ll throw out new buzz words that are being tossed around in the industry and media while trying to nail, in a broader sense, what they see as new drivers. Topping some of the lists of new buzz words are hyper-local, chef-driven fast casual concepts, food waste reduction and, reoccurring again, plant-based, natural ingredients and clean menus.

There are some newer emerging cuisines and ever-growing cuisines you will see more of in the next several years. Korean, Indian street food and Filipino foods seem to be hitting their stride. Still in the top ten however is the ever-growing segment of vegetable-forward cuisine. I’m also counting on a larger presence in the retail world of packaged entrées. One example of this would be the Suki’s line of Indian entrées. I must say they are pretty tasty and from my travels and palette recollection pretty authentic in their flavor profiles. I would be remiss if I didn’t mention Amazon. They are commanding a huge presence in the grocery/ online food shopping. I think you will see many new changes in how consumers shop and buy and acquire their food on a daily basis. On one end the local movement is getting more powerful and at the other Amazon is bringing in all you need from the grocery store right to your door.

What also caught my attention are the efforts being put forth by some of the larger players exploring cell-grown proteins — that’s right, growing meat in a lab from protein cells. Genetically tinkering and tweaking to make meat more acceptable by growing it from cells rather than harvesting from animals. Cargill, the country’s second-largest beef processor, took equity (with Bill Gates, Richard Branson) in Memphis Meats. This company creates chicken, duck and meatballs from animal cells ... on the premise that you won't have to slaughter antibiotic- laced animals in order to have hamburgers or leather shoes. Many predict lab-cultured chicken meat will be in the marketplace next year, which raises another interesting twist for labeling. Will they now have to segregate meat processed from an animal vs. meat grown in a lab?

My query to you all this week is two-fold: Where do you stand on meat produced in a lab? What new trends do you see on the 2018 horizon coming to the fore front?

I'm very curious to read your responses. As we have such a varied core base of readers, it should be interesting to hear your thoughts.

Wishing you all Happy Holidays and Merry Christmas.

Live Well...

*12/22/2017*

Dr. Dave Pyburn  
Vice President of Science and Technology  
National Pork Board  
1776 NW 114th St., Clive, IA 50325

Phone: 515-223-2634  
Cell: (b) (6)  
Fax: 515-309-5715  
Email: [DPyburn@pork.org](mailto:DPyburn@pork.org)

---

Please conserve our natural resources, think twice before you print this e-mail.

Dear Chef Formichella:

Thank you for pointing out some of the claims being made by lab grown meat startup companies.

I want to make sure your readers have an accurate understanding of antibiotic use in meat production today. As you note, the statement “This company creates chicken, duck and meatballs from animal cells ... on the premise that you won't have to slaughter antibiotic-laced animals in order to have hamburgers...” does misrepresent the U.S. meat industry. Let me share with your readers my science-based pork perspective.

The antibiotic products used in raising pigs, and all livestock, are approved by the U.S. Food and Drug Administration (FDA). As part of this approval process, the FDA requires a predetermined number of days to pass – a withdrawal time – from when antibiotics are used and when a pig goes to market. Each antibiotic has its own timeline defined by scientific research with the specific antibiotic. This is one measure in place to ensure that harmful antibiotic residues are not present in the meat we eat.

In addition to this requirement, the U.S. Department of Agriculture (USDA) Food Safety and Inspection Service monitors and tests meat to ensure that harmful residues – as defined by the FDA – do not enter our food supply. On the rare occasion that antibiotic residues are found, that meat is removed from our food supply. The meat we eat is safe due to both FDA rules and USDA testing.

If an antibiotic is used by a pig farmer, it is done with veterinary direction and under FDA-approved regulations. Pig farmers are dedicated to the production of safe food for people, and a focus on animal care and well-being.

## Lutton, Sara - AMS

---

**From:** Sharlotte Peterson  
**Sent:** Wednesday, January 31, 2018 2:49 PM  
**To:** John Johnson; Bill Winkelman  
**Subject:** RE: Good Food Institute

Thanks John, I have reached out to them.

---

**From:** John Johnson  
**Sent:** Wednesday, January 31, 2018 10:57 AM  
**To:** Bill Winkelman <bwinkelman@pork.org>; Sharlotte Peterson <SPeterson@pork.org>  
**Subject:** Good Food Institute

Clean Meat Speaker  
<http://www.gfi.org/our-team>

*John A. Johnson*  
Chief Operating Officer  
National Pork Board  
1776 NW 114<sup>th</sup> Street  
Clive, IA 50325

Office Phone: 515-223-2765  
Cell Phone: (b) (6)

---

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## Lutton, Sara - AMS

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**From:** John Johnson  
**Sent:** Wednesday, January 31, 2018 4:10 PM  
**To:** Charlotte Peterson; Bill Winkelman  
**Subject:** RE: Speaking Engagement - Pork Management Conference

You could reach out to the companies of Memphis Meat and Beyond Meat to see if they provide speakers. Not sure that they would see value in it, but you never know.

---

**From:** Sharlotte Peterson  
**Sent:** Wednesday, January 31, 2018 2:27 PM  
**To:** John Johnson <johnjohnson@pork.org>; Bill Winkelman <bwinkelman@pork.org>  
**Subject:** FW: Speaking Engagement - Pork Management Conference

Strike 3!!!

Do you all have someone else in mind??

**From:** Matt Ball [<mailto:mattb@gfi.org>]  
**Sent:** Wednesday, January 31, 2018 2:17 PM  
**To:** Sharlotte Peterson <[SPeterson@pork.org](mailto:SPeterson@pork.org)>  
**Subject:** Re: Speaking Engagement - Pork Management Conference

Hi Sharlotte,

Thanks so much for reaching out to GFI. With all the news from Tyson, Cargill, Maple Leaf, and PHW Group, the future is really interesting.

The perfect person for this would be our Executive Director and co-founder, Bruce Friedrich. Sadly, he will be at another conference at the time. I'm looking into options, but I doubt anything will come from that. But please keep us in mind for future options like this.

Thanks again,  
-Matt

Matt Ball  
Senior Media Relations Specialist  
[The Good Food Institute](http://TheGoodFoodInstitute.com)  
[MattB@gfi.org](mailto:MattB@gfi.org) (412) 445-5757



*GFI is hiring! We have job openings across a variety of roles. See for yourself and please spread the word: [www.gfi.org/jobs](http://www.gfi.org/jobs)*

On Wed, Jan 31, 2018 at 10:44 AM, Sharlotte Peterson <[SPeterson@pork.org](mailto:SPeterson@pork.org)> wrote:

Good Day!



My name is Sharlotte Peterson, I am the Outreach Projects Manager with the National Pork Board.

Each year we host a Pork Management Conference. I am currently finalizing the agenda for this year's meeting in Hilton Head, SC, April 17-20. One of the desired topics was to have someone speak on the emerging plant protein/alternative protein market. Would you or someone from your team be available to provide a 45 minute presentation, at 8:00 am on April 19<sup>th</sup>.

Last year we had over 200 pork producers and affiliated industry representatives attend this conference.

National Pork Board would pay all travel expenses and registration if you are able to speak.

I look forward to hearing from you and thank you for your consideration. Let me know if you have any questions.

Thank you,

Sharlotte Peterson

National Pork Board

[515-223-2614](tel:515-223-2614)

[speterson@pork.org](mailto:speterson@pork.org)

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# Meat Alternatives

John Johnson, COO



*People. Pigs. Planet.*<sup>SM</sup>

# Alternative Protein Is Becoming Big Business





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Made with Non-GMO Pea Protein.



FIND IT IN THE  
FROZEN AISLE



[FUTURE OF PROTEIN](#)[PRODUCTS](#)[RECIPES](#)[ABOUT](#)[CONTACT](#)[STORE LOCATOR](#)A photograph of a family in a kitchen. A man on the left holds a young girl in a pink shirt. A woman on the right is smiling and looking down at a young boy who is also smiling. They appear to be preparing food together. The kitchen has white cabinets and a black range hood.

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## Beyond Meat Plant-Based Burgers Get Mega Safeway Distribution Deal

The meat alternative food craze backed by Bill Gates, Tyson, and more gets picked up in hundreds of this retailer's stores



## **Tyson Foods Invests in Startup Beyond Meat**

**The startup's plant-based burgers aim to replicate the taste and sizzle of ground beef**

The Wall Street Journal

Updated Oct. 12, 2016 -- Tyson Foods Inc., the largest U.S. meat company by sales, on Monday said it took a 5% stake in Beyond Meat, a purveyor of plant-based burger patties that seek to replicate the taste and sizzle of ground beef.

Beyond Meat's patties are a laboratory-born concoction of pea protein, canola and coconut oils with a similar texture, savory taste and even the grilled sizzle of a beef burger.



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# MEAT PRODUCTION IS PROBLEMATIC

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**ANIMAL WELFARE**

**WATER POLLUTION**

**ANTIBIOTIC RESISTANCE**



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**65%** OF US CONSUMERS WOULD EAT  
CLEAN MEAT

*"LAB-GROWN BEEF WILL  
SAVE THE PLANET, AND BE A  
BILLION DOLLAR BUSINESS"*

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# DOING THE IMPOSSIBLE

We're Impossible Foods. Together, we're working to transform the global food system by inventing better ways to make the foods we love, without compromise.







## MFA Launches New Sister Organization

By [Richard Bowle](#) | March 5, 2016

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Companies creating cultured and plant-based meat, eggs, and milk will have backers in Mercy For Animal's new Good Food Institute.

[Mercy For Animals](#) (MFA) has announced the launch of a new sister organization called [The Good Food Institute](#) (GFI) aimed at creating a healthy, humane, and sustainable food supply by supporting startups that are developing plant-based and cultured meat, milk, and eggs. The company provides marketing, design, legal, business, media, and other support to a select number of early-stage companies producing cultured and plant-based products, including [Memphis Meats](#), a San Francisco-based startup that says it will help make animal agriculture obsolete. "Imagine a food system where the most affordable and delicious products are also good for our bodies and the planet," the organization says. "Unlike any other moment in history, we now have the ability to blend imagination with design to improve the world around us." Another new MFA project, [New Crop Capital](#), is a venture capital group that will complement GFI's efforts by providing lead investments to a number of animal-free companies, including [Beyond Meat](#), [Mark Bittman's](#) vegan meal delivery service [Purple Carrot](#), [Gelzen](#) (a startup creating cultured gelatin), [Lyrical Foods](#) (owners of [Kite Hill](#)), and [Miyoko's Kitchen](#).

## **New Crop Capital Closes \$25m Fund – “Funding the next generation of food industry disruptors”**

“New Crop Capital was born out of the recognition that the plant-based and cultured sectors are about to explode,” said Friedrich, who has pivoted from the non-profit sector. “Animal agriculture is unsustainable, unhealthy, cruel to animals, and extremely high risk. The shift to plant-based proteins has already begun—even as meat consumption is falling, the plant-based alternatives market is growing rapidly. The Good Food Institute and New Crop Capital are speeding that transition by increasing the number of companies operating in the plant-based and cultured space and by helping the companies that exist to be as successful as possible.”



# *The Good Food Institute*

Creating a healthy, humane, and sustainable food supply

*Imagine a food system where the most affordable and delicious products are also good for our bodies and the planet.*



# *What We Do*

*We work with scientists, investors, and entrepreneurs to make groundbreaking good food a reality. We focus on clean meat and plant-based alternatives to animal products—foods that are more delicious, safer to eat, and better for the planet than their outdated counterparts.*



## *Bruce Friedrich*

### Executive Director

Bruce graduated magna cum laude from Georgetown Law and Phi Beta Kappa from Grinnell College and also holds degrees from Johns Hopkins University and the London School of Economics. Bruce has held leadership roles for the past two decades at top nonprofits working to reform animal agriculture. Bruce is a popular speaker on college campuses and has presented repeatedly at most of the nation's top universities, including Harvard, Yale, Princeton, Stanford, and MIT. Bruce co-authored one book, contributed chapters to five books, and authored six law review articles. Bruce is co-trustee of New Crop Capital, a venture capital fund that invests in plant-based and "clean meat" companies (NewCropCapital.com). Recent publications, presentations, and interviews: [https://works.bepress.com/bruce\\_friedrich/](https://works.bepress.com/bruce_friedrich/)



**D.C. GETS FIRST PLANT-BASED 'MEAT' LOBBYIST:** There's a new lobbyist in town and she's focused on making plant-based and lab-grown meat more mainstream. **The Good Food Institute**, which supports eliminating the use of animal products by promoting replacements, has hired [Joanna Grossman](#) to represent it on Capitol Hill. **"I'm essentially the only lobbyist focused on plant-based meat,"** says Grossman, who recently swung by POLITICO HQ in Washington to catch up.

Grossman was previously [registered as a lobbyist](#) representing the Society for Animal Protective Legislation, a division of the Animal Welfare Institute. She comes to GFI with a hefty academic resume, including a Ph.D. and M.A. from Harvard University. She was also a Fulbright Scholar at the University of Oxford. Grossman joins a growing shop at GFI. **The group is currently looking to hire 18 more staff**, she said. Find more on GFI's work from WaPo [here](#).

## *Advisors*



*Khaled bin Alwaleed*



*Josh Balk*



*Ryan Bethencourt*



*Kevin Boylan*



*Asheem Chandna*



*Liz Dee*



*Brad Goldberg*



*Alinta Hawkins*



*Winnie Lam*



*Chuck Laue*





*Michael Pellman  
Rowland*



*Craig Phillips*



*Mark Post, M.D.,  
Ph.D.*



*Matt Prescott*



*Alicia Robb*



*Chris Roth*



*Maggie Sadowsky*



*Chad Sarno*



*Derek Sarno*



*Kurt Schmidinger,  
Ph.D.*



*Paul Shapiro*



*Ajit Singh, Ph.D.*



*Shen Tong*



*Uma Valeti, M.D.*



*Susan Vitka*



*Suzy Welch*

---



*Eron Zehavi*

# Domestic and International Marketing Collaboration

Jarrold Sutton, VP Domestic Marketing

Becca Nepple, VP International Marketing



# Marketing Sharing and Collaboration

Objective: Seize opportunity to **maximize resources**, encourage collaboration, share relationships and connections with key chains globally

## Global chain restaurants and/or retail chains

- Share USMEF ↔ DM engagement with chains headquartered in U.S.
- Share marketing trends
- Determine ways to leverage relationships globally
- Build upon NPB and USMEF strategic plans
- Actions: Denver USMEF/NPB staff to evaluate short-term and long-term opportunities and protocols

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**pork**  
**checkoff.**



# Marketing Sharing and Collaboration

## Culinary ideation and sharing

- Share international ↔ domestic authentic recipes, photos and insight
- Determine methods to be a conduit for sharing USMEF ↔ NPB DM
- Potential Actions: webinar series, develop reward trip

## LATAM countries:

- Exchange information USMEF ↔ NPB DM staff to determine synergies, opportunities



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# DM Multicultural Effort Tie to USMEF Latin America Efforts



# LATAM Collaboration

---

Objective: To be recognized as a consultative Hispanic and Latin American consumer expert for the U.S. pork industry and to be a catalyst for consistent, positive messaging regarding U.S. pork internationally

## Payoff

- Visibility of working relationship between NPB ↔ USMEF
- Pipeline for sharing ideas, information and resources
- Expert in the culture, its consumers and its supply chain
- Consistent messaging in U.S. and LATAM countries



# LATAM Collaboration Process

- NPB Board international study trip to Mexico
- Exploratory meeting with USMEF LATAM
- USMEF Latin America Product Showcase
- Immersion experience in Mexico
- Engage in DM/USMEF international food service and retail chain strategy
- Build and foster relationship with USMEF, share learnings



# ***NPB Domestic Marketing Strategy Change***

Bill Even, Chief Executive Officer  
Jarrod Sutton, VP of Domestic Marketing  
National Pork Board



# Agenda

---

- **Purpose:** Inform Board about rationale for needed change in Domestic Marketing “Go-to-Market” strategy.
- **Process:** Webinar overview; Discussion with Q and A at June 6 Board meeting.
- **Payoff:** Board supports the change in strategy and supports allocating necessary resources for research.

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**Pork Promotion, Research, and  
Consumer Information Act of 1985  
(7 U.S.C. 4801)**



# Pork Promotion, Research, and Consumer Information Act of 1985

---

- “...authorize the establishment of an orderly procedure for financing, through adequate assessments, and carrying out an effective and coordinated program of **promotion**, **research**, and **consumer information** designed to)
  - (A) strengthen the position of the pork industry in the marketplace; and
  - (B) maintain, develop, and expand markets for pork and pork products.”



# NATIONAL PORK BOARD

2016-2017



**Gary Asay**  
Osco, Illinois



**Pat FitzSimmons**  
Dassel, Minnesota



**Brett Kaysen**  
Nunn, Colorado



**Carl Link**  
Fort Recovery, Ohio



**Henry Moore**  
Clinton, North Carolina



**David Newman**  
Jonesboro, Arkansas



**Gene Noem**  
Ames, Iowa



**Alicia Pedemonti**  
Hopkinton, New Hampshire



**Kris Scheller-Stewart**  
Goldsboro, North Carolina



**Michael Skahill**  
Williamsburg, Virginia



**Bill Tentinger**  
LeMars, Iowa



**Glen Walters**  
Forsyth, Georgia



*President*  
**Jan Archer**  
Goldsboro, North Carolina



*Vice President*  
**Terry O'Neel**  
Friend, Nebraska



*Treasurer*  
**Steve Rommereim**  
Alcester, South Dakota



*Immediate Past President*  
**Derrick Sleezer**  
Cherokee, Iowa

# Federal Research & Promotion Programs

FY2016 Estimate

<u>Commodity</u>	<u>Estimated Revenue</u>	<u>Commodity</u>	<u>Estimated Revenue</u>
Dairy	112.0 M	Peanut	10.4 M
Soybeans	103.4 M	Honey	9.8 M
Fluid Milk	88.1 M	Blueberries	8.3 M
Cotton	75.6 M	Mango	7.8 M
<b>Pork</b>	<b>69.0 M</b>	Sorghum	7.5 M
Hass Avocado	56.2 M	Mushroom	5.1 M
Beef	44.8 M	Watermelon	3.5 M
Eggs	27.9 M	Raspberries	2.7 M
Paper & Packaging	24.5 M	Lamb	2.6 M
Softwood Lumber	20.0 M	Christmas Trees	1.5 M
Potato	20.0 M	Popcorn	1.0 M

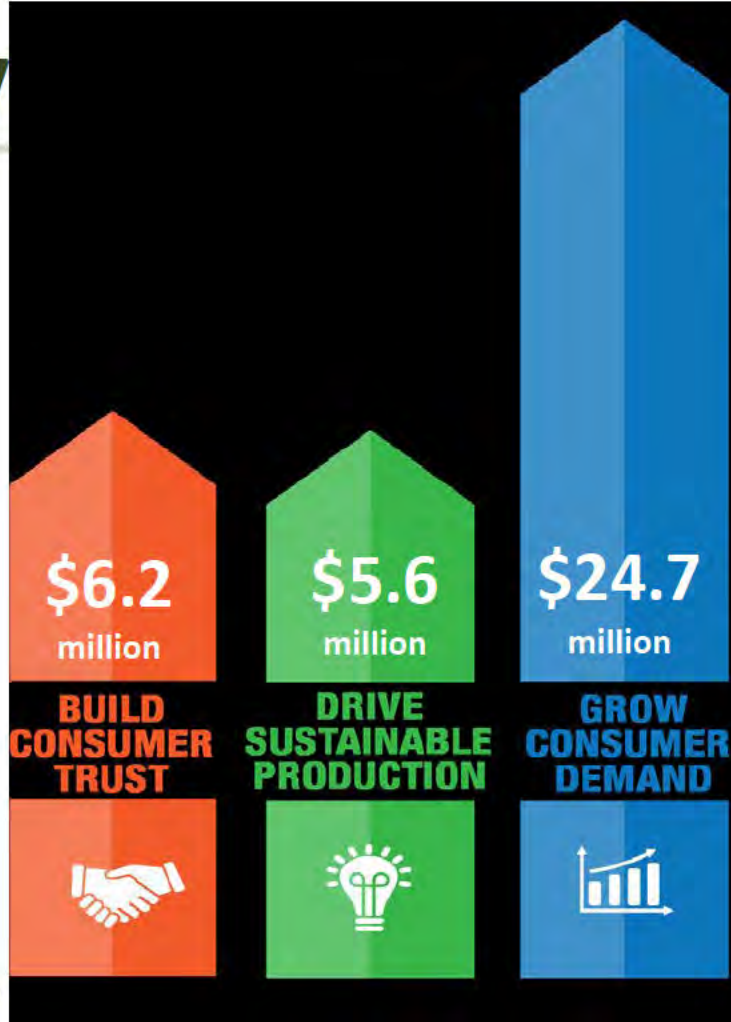
*Note: The boards' fiscal year coincides with the calendar year for the blueberry, cotton, dairy, egg, fluid milk, hass avocados, honey, mangos, mushroom, paper, pork, popcorn, and Softwood lumber boards. The other boards operate under different 12-month fiscal periods.*

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# Investment by



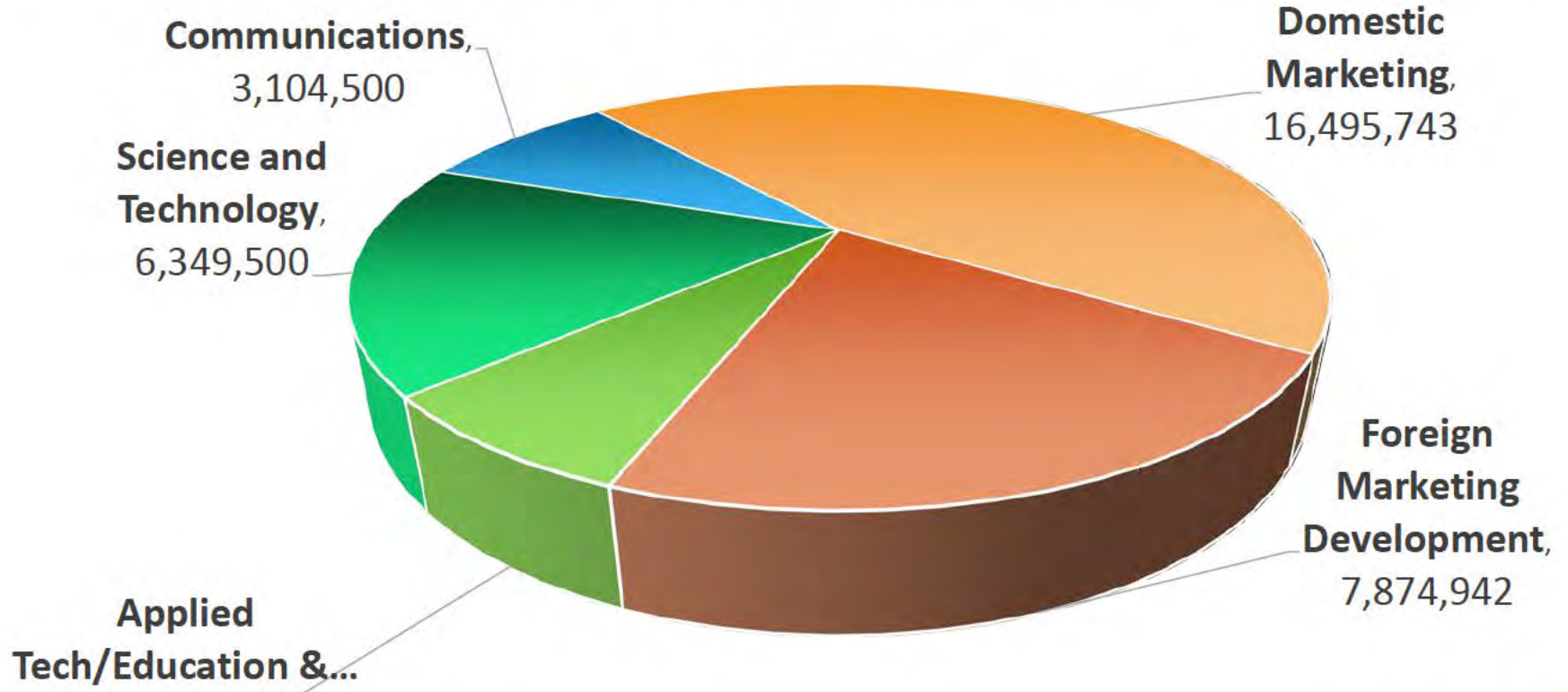
2 of every 3

Checkoff program dollars are invested in growing demand.

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# 2017 Programs by Department



# National Pork Board 2017 Priorities

---

- Domestic Marketing Strategy Change
- Secure Pork Supply Plan Implementation
- Pork Quality Improvement
- Digital Strategy Team

# Domestic Marketing Strategy Change

- Moving from a primary **Business to Consumer** advertising approach to a primary **Business to Business** consulting approach.
- Research Needs Scoping: June 2017
- Initial research work: July – December 2017
- Team strategy development: July – December 2017
- Team strategy launch: 2018 TBD

# New DM Vision Statement – Draft

---

*“NPB provides **unique value** to the supply chain as the pork **industry leader** in knowledge of **consumer requirements** and preferences, insights into **category growth**, and **future-proof solutions** for stakeholders to **grow** and **thrive** in a rapidly changing world.”*

*People. Pigs. Planet.*<sup>SM</sup>

# Domestic Marketing: Why Change?





# 2017 Internal Goal: Integrate DM Strategy



**2017 Action:  
Single Go-To-Market  
Approach**



**Consumer  
Marketing**

**Channel  
Marketing**

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# Surging Meat Industry Growth

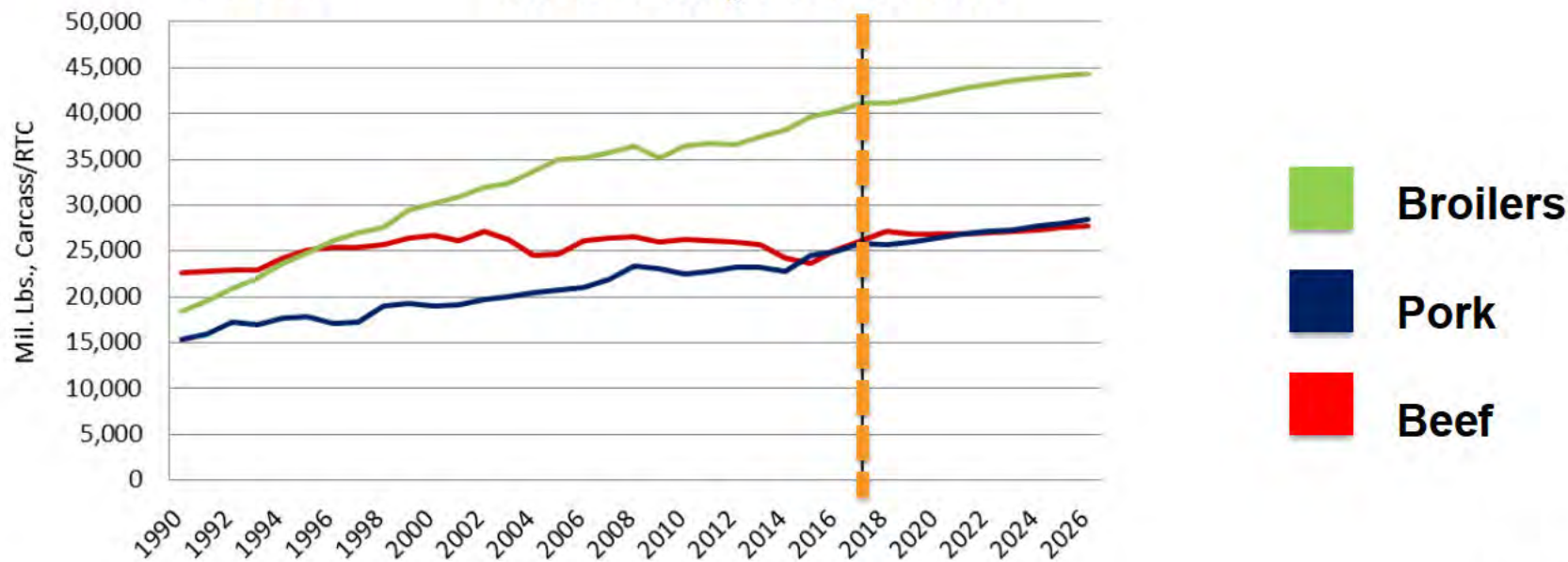
Red meat and poultry production forecast to go **up 9%**

- 8.3 billion pound increase in three short years
- **Beef** is projected **+ 6.6%**
- **Chicken** is projected **+ 9%**
- **Pork** is projected **+12.3%**

# U.S. Meat Production Outlook

EMI Express Markets, Inc.  
Analytics

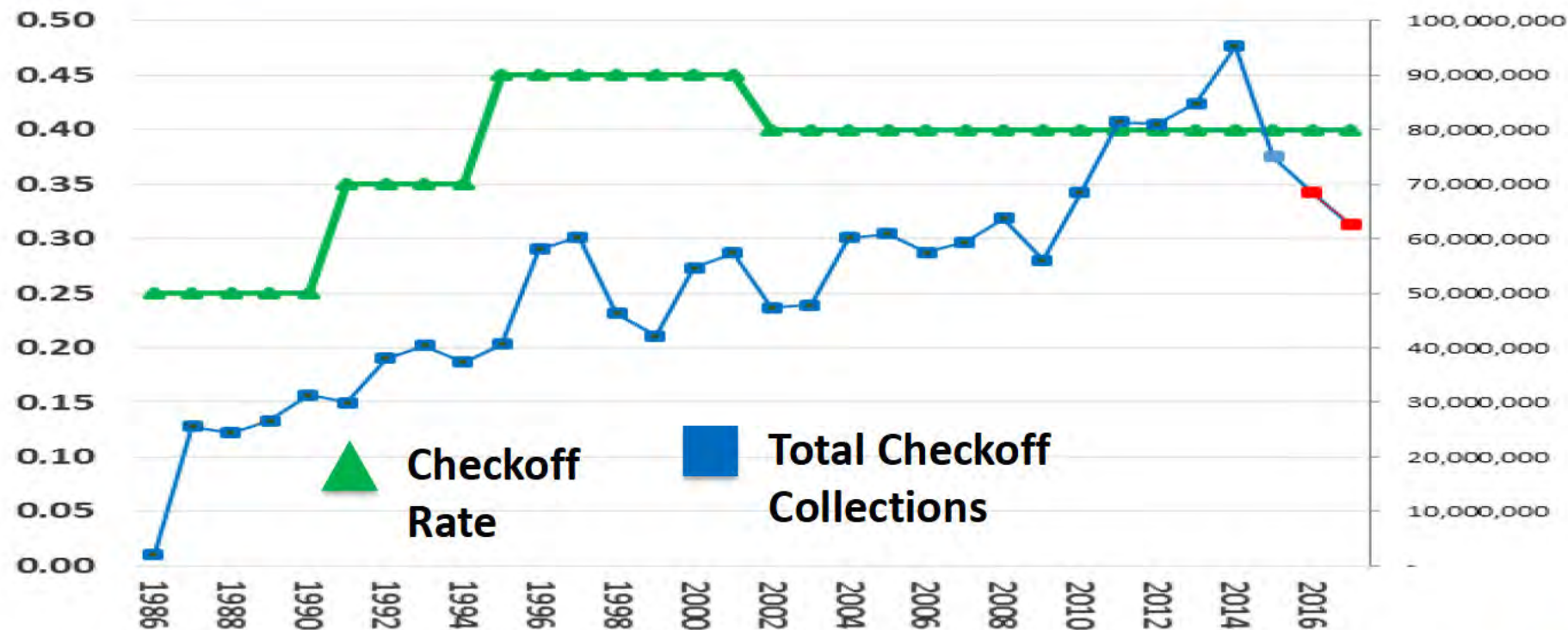
## U.S. Red Meat and Poultry Production



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# Checkoff Revenue and Rate



# Rapidly Consolidating Supply Chain

- **7** pork packer/processors manage **90%** of the pork produced
- **10** retail grocery companies represent **65%** of all commodities volume
- **80** foodservice companies (chains, operators and distributors) drive trends for the restaurant industry

# Retailer and Packer Rankings

**Packers** ranked by slaughter numbers (today):

1. Smithfield
2. JBS USA
3. Tyson
4. Seaboard - Triumph
5. Hormel
6. Indiana Packer Corp
7. Clemens Food Group

**Grocery Retailers** ranked by sales (consumables):

1. Walmart
2. Kroger
3. Costco
4. Albertsons
5. Delhaize/Ahold
6. Target
7. Publix
8. HEB
9. Meijer
10. Supervalu



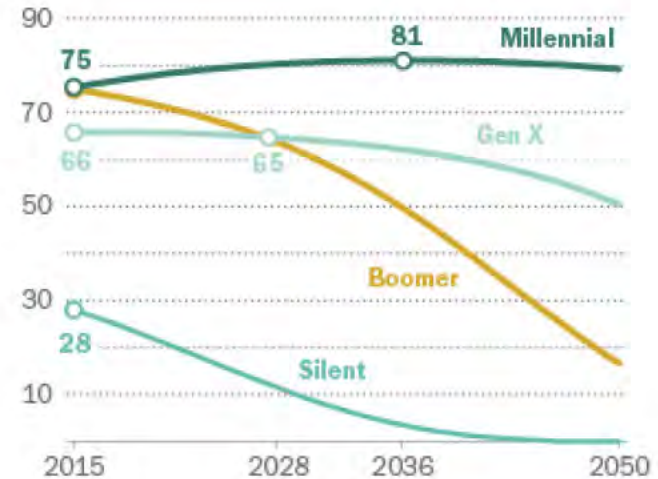


# Changing Consumers...

- **Baby Boomers:** 74.9 million
- **Gen X:** 65.8 million
- **Millennials:** 75.4 million
  - ~ 42% multicultural
  - ~ 30% living at home

## Projected population by generation

*In millions*



Note: Millennials refers to the population ages 18 to 34 as of 2015.

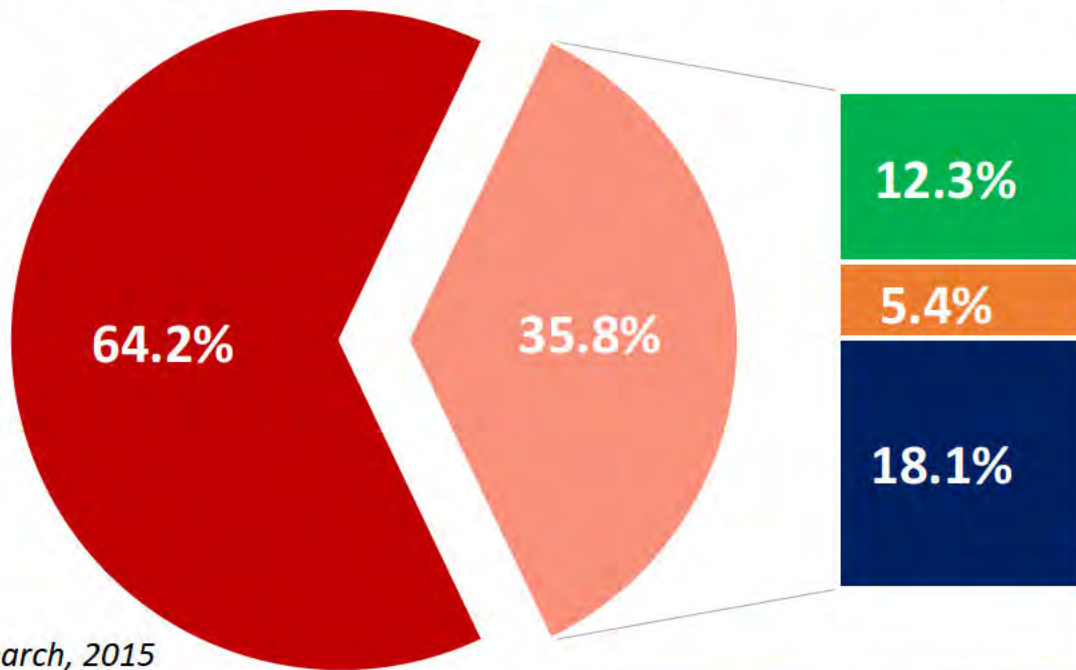
Source: Pew Research Center tabulations of U.S. Census Bureau population projections released December 2014 and 2015 population estimates

PEW RESEARCH CENTER

# U.S. Demographics in 2015

■ Non-Hispanic White ■ Non-Hispanic Black ■ Non-Hispanic Asian & Pacific Islander ■ Hispanic

NH White  
Population  
Growth =  
**1%**  
through  
2050



Hispanic  
Population  
Growth =  
**167%**  
through  
2050

Source: Geoscape Research, 2015

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58.2 million Hispanics

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# Generation “M”



**Millennial**



**Mobile**



**Multicultural**

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# Increasing Consumer Expectations

- Transparent
- Authentic
- Natural
- Clean





# Increasing Food Company Needs

- Need insight and advice to navigate the future of food
  - Action-oriented Leadership
  - Innovative ideas
  - Spot trends
  - Escape marketing traps
  - **Pork Sales Growth**



# Serious Questions Are Being Asked

---

- What is the relevance of generic commodity fresh pork advertising in 2017?
- Industry is creating and marketing more brands
- Is NPB merely a checkbook for tactics?
- Who can help industry with Freedom to Operate?

# 1985...

That  
was  
then...

How we communicate and how we farm has changed...



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checkoff.

# 2017...

THIS  
IS NOW!

...we must adapt our go-to-market strategy to keep pace!

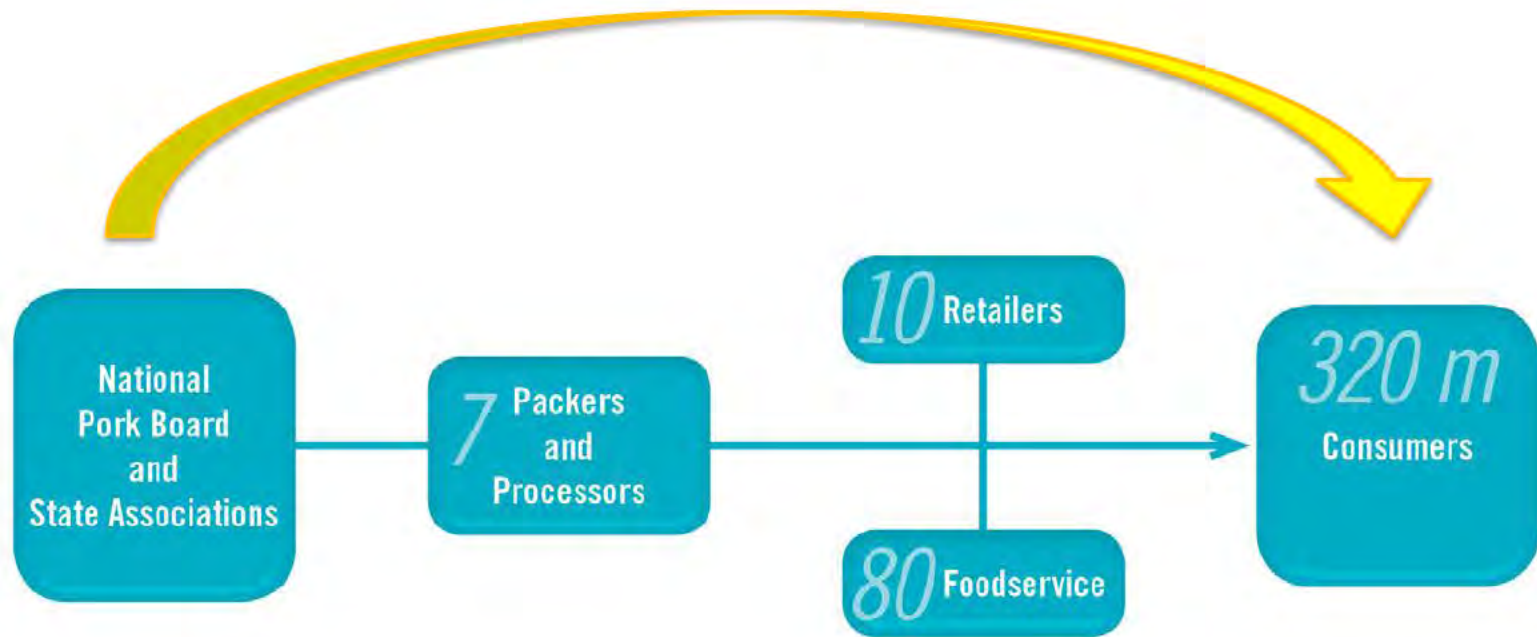


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checkoff.



# Our 1985 Marketing Strategy Needs to Evolve

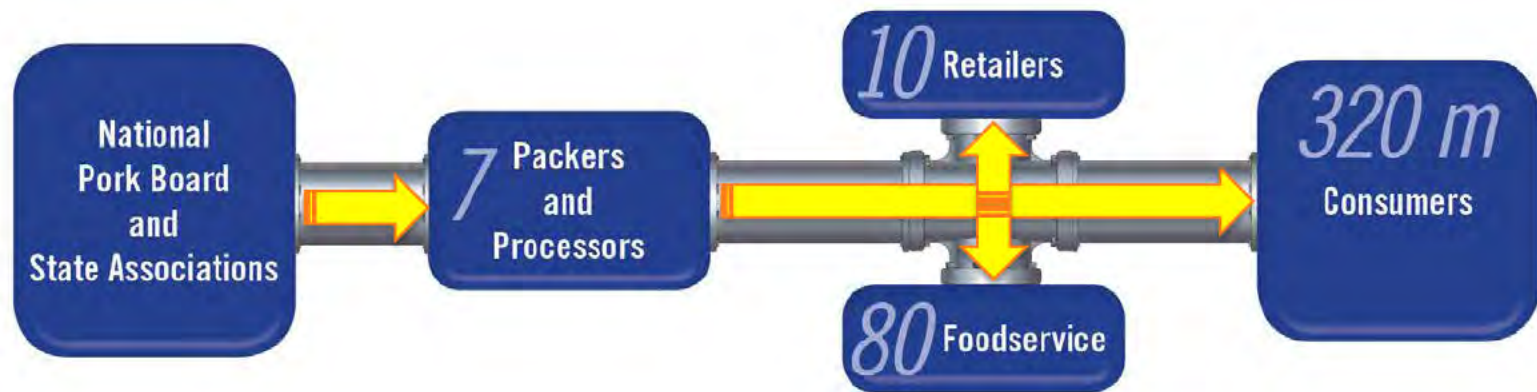


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checkoff.



# How our 2018 Marketing Strategy Needs to Work



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# Major Strategic Areas of Focus

- Domestic Marketing Packer/Processor (*Interviews underway*)
- Social Responsibility/We Care/Animal Welfare
- Market/Business/Consumer/Multicultural Intelligence
- Content Creation
- State Pork Association Support
- Retail Grocery
- Food Service & Distributors
- Digital/Earned Media/PR/Communications

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# New DM Organizational Structure

---

- Draft structure developed
- Discuss at June 6, 2017 Board Executive Session
- New job descriptions drafted in June

# Market / Consumer Intel and Research Matrix

Consumer Insights

**Segmentation Study (2010, 2015)**  
**Bi-Annual Tracking Study**  
**Pork Effect (2014)**

Industry Data

**Nielsen**  
**Datassential**  
**MarketTrac**  
**Technomics**  
**Urner Barry**

**Existing Inventory**

**EMI Analytics**  
**Daily Livestock Report**  
**Pork Profit Maximizer**

Competitive Protein Analytics

Predictive Analytics / Future Trends

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# Budget Estimates for Market/Consumer Research

---

- Existing research is an inch wide and a mile deep
- Already internally reprogrammed (approx. \$1 m)
- Initial research scoping begins June 1
- Will likely need a supplemental in September
- 2018 DM budget becomes clearer by November
- No supplemental anticipated in 2018

# Timeline

---

- June 6: Board of Directors Meeting and Approval
- June 27: DM Committee Strategy Planning Meeting
- July – December: Initial Market Research
- August 30: Board Update
- November 14: 2018 Strategy and Budget Approval
- Anticipate 2018 Deployment



# Clarity

## What is changing

- Go-to-market approach
- Consumer advertising declines
- Consumer research increases
- Integrated DM strategy built
- No firewall between pork and pig production
- Supply chain engagement up

## What is not changing

- Pork Checkoff Logo use
- Food Service approach (mostly)
- DM as the Pork Experts
- State Pork Assn. support
- NPB professionalism

# Anticipated State Pork Association Questions

- How will the change impact state cost share?
- How will the change impact budgets and timing?
- How can my state staff engage/participate/partner in the new model?
- Will we still get support for photos, ad copy, videos, web sites, publications, etc.?
- Will NPB still do consumer advertising or will it be reduced/redirected to digital?
- Who will be our point of contact support at NPB going forward?
- When will these changes “Go Live” at NPB?
- How do we maintain trademarks and Intellectual Property protection?
- How can we maintain consistency and continuity in our marketing & promotion approach?
- Will you sunset the “Be Inspired” marketing tagline?
- What does this mean for my state staff and can we continue to do promotions?

# Some Discussion Questions



- Is there equity in the pork mark?
- How should it be used?
- Does it require a tagline?
- What are the supply chain gaps in research and insight that NPB can fill?
- How should the NPB address the pork industry's social responsibility needs?
- How should the NPB work in the intersection of product marketing and issues/reputation management (pork vs. pig production)?
- How would you structure NPB marketing in a B2B consulting role?
- How does NPB marketing need to adapt to support a CPG pork strategy?

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# What Questions Do You Have?

This message funded by America's Pork Producers



# The Issue



- \$1.3 billion invested in food tech in the first five months of 2018 alone.
- Compared to \$750 million in all of 2017.
  - Direct meat sales to consumers
  - Mobile restaurant and grocery delivery
  - Lab-grown meat
  - Plant-based meat substitutes

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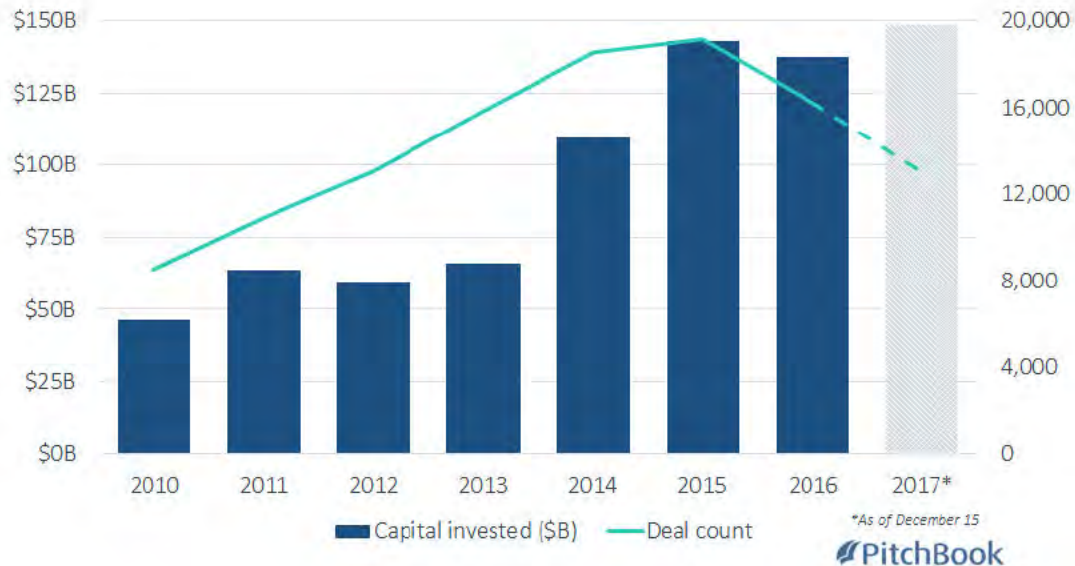
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**checkoff.**



# The Issue

- Food @ \$1.3 Billion.
- \$150 billion total VC market.
- There is capital available.
- Agriculture = 10% of US economy @ \$1 trillion.
- The pork industry has problems that need to be solved.
- What is driving these food tech investments?

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20 Years Ago...

Google

Technology Drives  
Innovation and MASSIVE  
Business Change and  
Disruption

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# Fueled By Consumer Behavior

Consumers are willing to  
pay up to 13% more if  
their food is sustainable



**6 out of 10** millennials use their  
**smartphones or tablets** to help out in the kitchen

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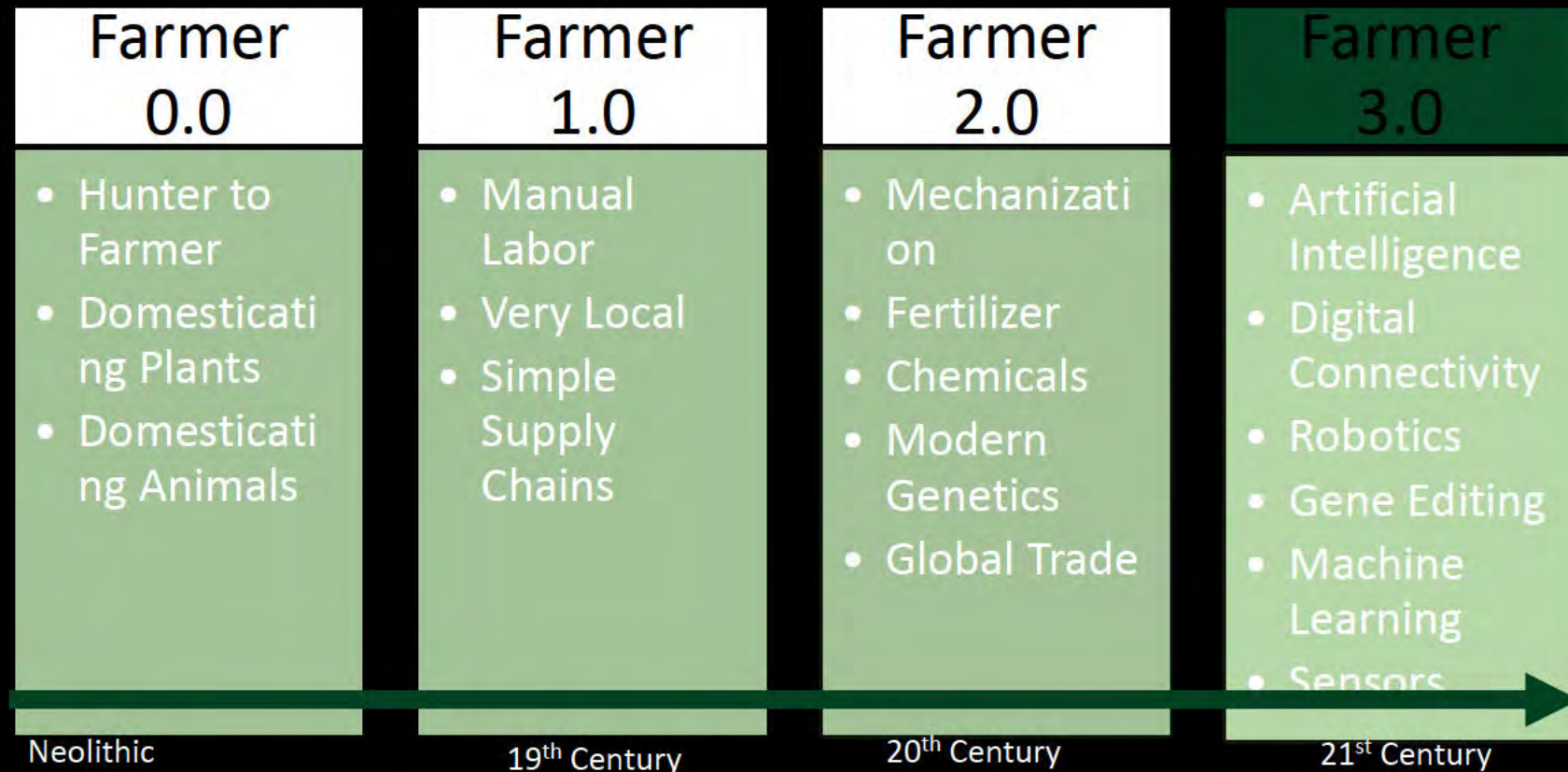
**pork**  
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## *Funded By*

- Venture Capital
- Corporate VC Investment

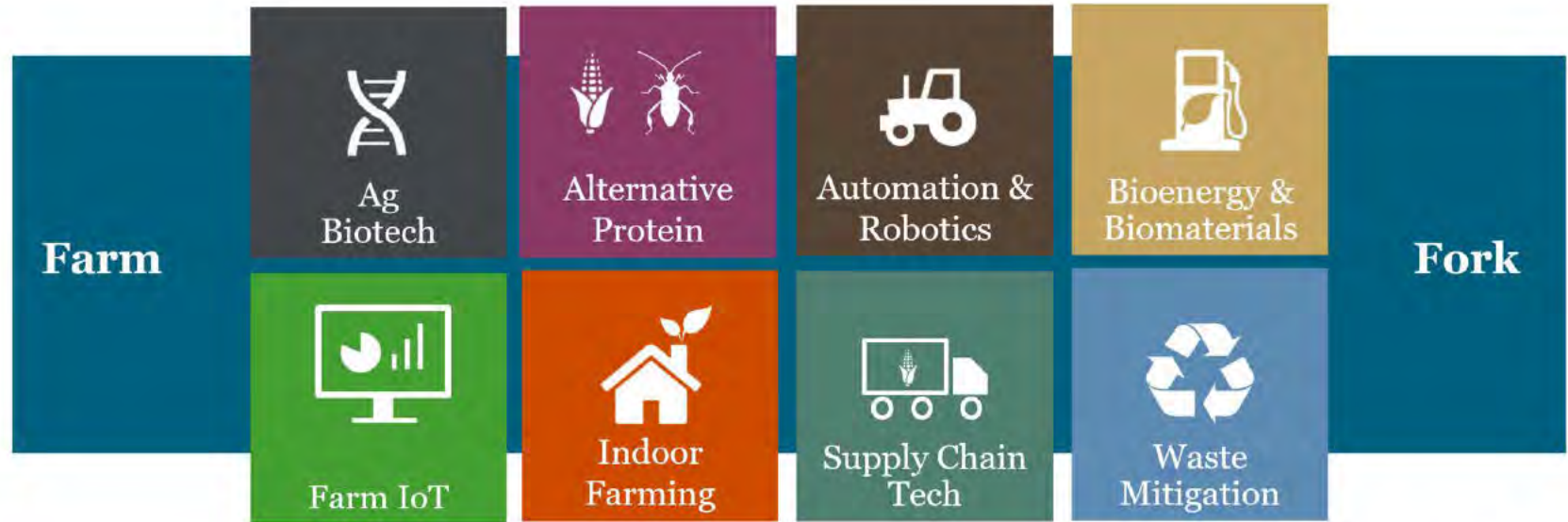


# The Evolution Of Farming





# Eight Emerging Areas of Ag Tech Activity



Source: Wells Fargo

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# We Need a New Approach...

- To Problem Identification
- To Problem Solving
- To Science
- To Technology
- To Research
- To Innovation
- To Moving at the Speed of Business



## EMERGING TECHNOLOGY

NEURAL  
NETWORKS

DIGITAL PAYMENTS

ARTIFICIAL

DEEP LEARNING

INTELLIGENCE

BLOCKCHAIN

DIGITAL

CRYPTOCURRENCY

MOBILE

VIRTUAL REALITY

ROBOTICS

AUGMENTED

BIG DATA

3D

REALITY

VOICE

PRINTING

IOT

DRONES

MACHINE

VISION

E-COMMERCE

MACHINE LEARNING

ANALYTICS

MIXED  
REALITY

SMART KITCHEN

VIRTUAL ASSISTANTS

## GOVERNANCE

Dir. Emerging Tech

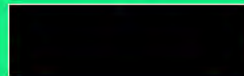
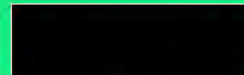
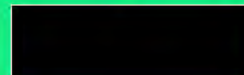
NPB Staff

Senior Leadership

Board of Directors

Industry Steering  
Team

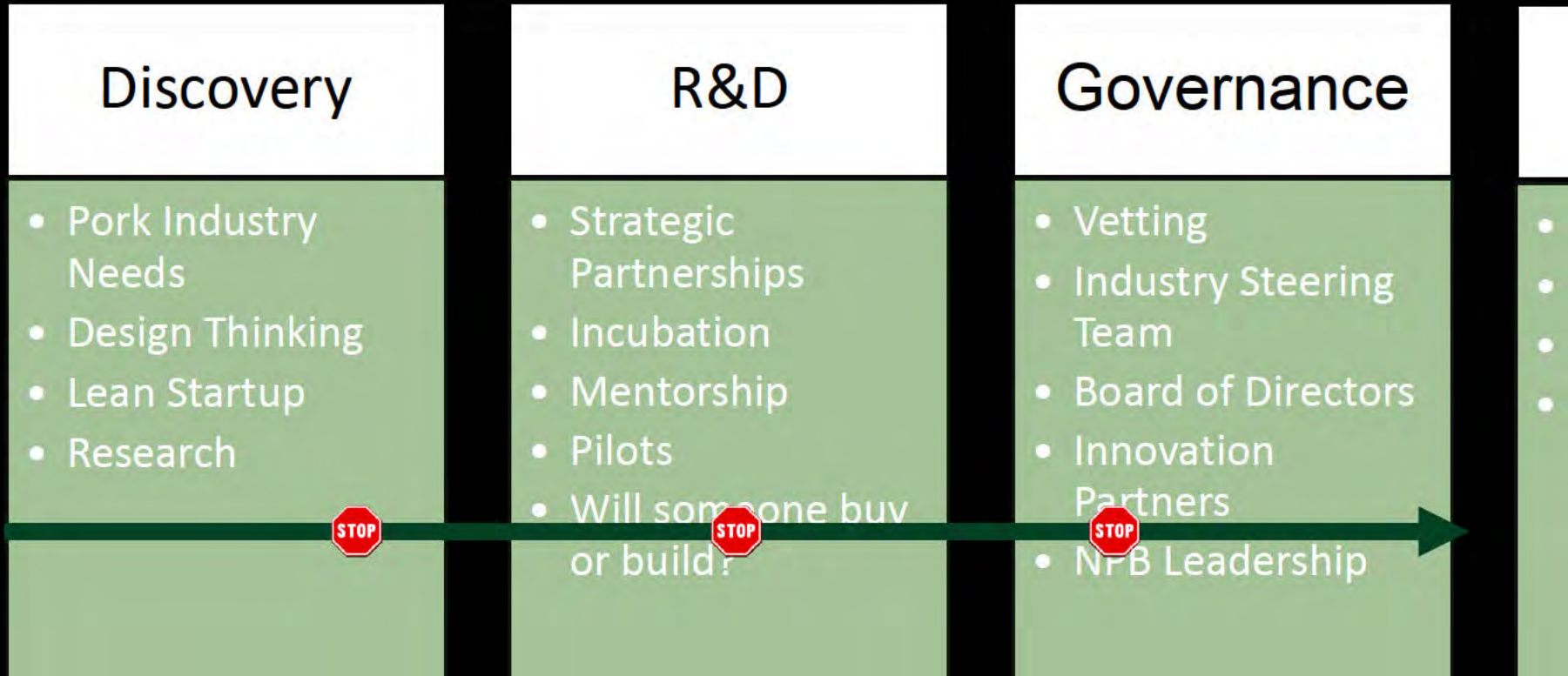
## STAKEHOLDERS



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por  
checkoff.

# Pork Innovation Pipeline Approach



## Pork Board Examples In Action

- **Google Partnership** – Direct Consumer Data & Marketing
- **Blockchain Pilot** – Supply Chain: Sustainability, SPS, Feed
- **E-Commerce** – Customer Development with HyVee
- **Voice** – R&D for Amazon Echo and Google Home
- **Outreach** – Iowa AgriTech Accelerator, Krobels Corp, FarrPro, Thrive Ag VC, K-State, Web Geeks, Animal Welfare Committee



# Pork Board Opportunities

## Now

- Strategic Plan
- Pork Technology Research Report
- We Care/Secure Pork
- Emerging Digital Channels
- Pilot Projects

## Next

- Industry Collaboration
- Pork Tech Summit
- Innovation Pipeline

## Futu

- Pork Accelerator
- Pork X Prize
- Pork VC Fund
- Pork Tech Center

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**Thank You**







FIG

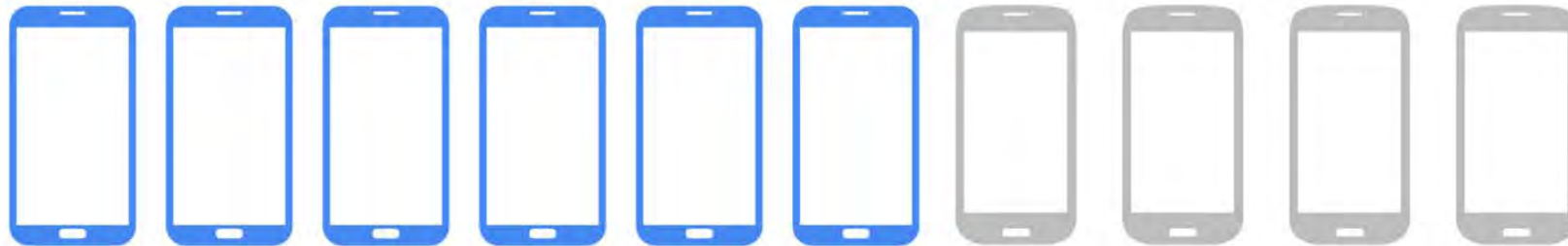
# Emerging Technology

And the evolving food system

**pork**  
**checkoff**®

# Fueled By Consumer Behavior

Consumers are willing to pay up to 13% more if their food is sustainable



**6 out of 10** millennials use their **smartphones or tablets** to help out in the kitchen



***Powered By***  
**Technology**



***Funded By***  
Venture Capital  
Corporate Investment





## Upstream

Ag Biotech, Farm Management SW, Farm Robotics & Equipment,  
Bioenergy & Biomaterials, Novel Farming,  
Agribusiness Marketplaces, Midstream, Innovative Food

**\$4.2bn**

INVESTMENT

**+24%**

GROWTH (\$)

**569**

DEALS

**-2%**

GROWTH (#)

**839**

UNIQUE INVESTORS

**\$275M**

LARGEST DEAL

## Downstream

In-store Restaurant & Retail, Online Restaurants, eGrocery,  
Restaurant Marketplaces, Home & Cooking

**\$5.9bn**

INVESTMENT

**+34%**

GROWTH (\$)

**425**

DEALS

**-23%**

GROWTH (#)

**648**

UNIQUE INVESTORS

**\$1bn**

LARGEST DEAL



# AG TECH: 100+ TECHNOLOGY COMPANIES CHANGING THE FARM

## NEXT GEN FARMS



## FARM MANAGEMENT SOFTWARE



## PRECISION AGRICULTURE AND PREDICTIVE ANALYTICS



## MARKETPLACES



## ROBOTICS AND DRONES



## SENSORS



## SMART IRRIGATION



## PLANT DATA/ANALYSIS





# The Supply Chain & Logistics Tech Market Map



## Digital Freight Shipping



## Sensors & Asset Tagging



## Inventory Management



## Blockchain



## Food Supply Chain



## Supply Chain & Logistics Analytics



## Trucking Marketplace & Fleet Management



## Warehousing



## Enterprise Resource Planning



## E-Commerce Logistics



## Autonomous Trucking



## Last-Mile AV & Drones



## Last-Mile Delivery Services







# THE GROCERY STORE TECH MARKET MAP

## REAL-TIME SHELF MONITORING

GeSpotCheck

mibee observa

Trax image recognition  Click and Walk

## MERCHANDISING TOOLS

blueyonder

RANGE-me

shelvspace

ALKEMICS



## STORE ROBOTS & CHATBOTS

fellow ROBOTS simbe  COSY  satisfi

## INTERACTIVE DISPLAYS

 cloudtags  ENPLUG  
Ksubaka aila  eyeQ

## AUGMENTED/VIRTUAL REALITY TOOLS

 InContext SOLUTIONS  AUGMENT

## DIGITAL LABELS

ScanLife  
supersmart  
ITEMMASTER

## MUSIC MANAGEMENT

 ROCKBOT

Soundtrack Your Brand

KAZUM  ATMO SELECT

## SHOPPER FEEDBACK

TruRating.  WYZERR  
ecrebo

## FOOD WASTE MANAGEMENT

 FoodMaven  MAT SMART  
 Enterra  Spoiler Alert

## IN-STORE REWARDS

ibotta  SavingStar  
Fetch Rewards  KOUPON MEDIA  FIVESTARS

## IN-STORE SHOPPER INSIGHTS

 MetaBrite  CIVALUE  
 manthan  Index

## SMARTER RECEIPTS

 flexReceipts  
 snapcart

## PROMOTION OPTIMIZATION

 eversight  Quri  
 Shelfbucks

## BEACONS & LOCATION TRACKING

 Euclid analytics  FOOTMARKS  sewio  
 RetailNext  estimote  SWIRL  
beabloo  PlaceIQ  
 Scanalytics Inc.  innoorange  walkbase  bfonics

## STORE MANAGEMENT

 frotek  
 SHOPKEEP  
 lightspeed  
bindo POS

## STORE GARDENS

BRIGHT FARMS

 CBINSIGHTS

# The Evolution Of Farming





## EMERGING TECHNOLOGY

NEURAL NETWORKS  
DEEP LEARNING  
BLOCKCHAIN  
MOBILE  
AUGMENTED REALITY  
IOT  
E-COMMERCE  
ANALYTICS  
DIGITAL  
ARTIFICIAL INTELLIGENCE  
CRYPTOCURRENCY  
VIRTUAL REALITY  
BIG DATA  
VOICE  
DRONES  
MIXED REALITY  
SMART KITCHEN  
ROBOTICS  
3D PRINTING  
MACHINE VISION  
MACHINE LEARNING  
VIRTUAL ASSISTANTS

## GOVERNANCE

Dir Emerging Tech

NPB Staff

Sr. Leadership

Board of Directors

Industry Task Force

## STAKEHOLDERS

Farm

States

Logistics

Packers

Foodservice

Retail

Consumer

## R&D

Research new and emerging technology while developing proof of concept models.

## Consulting

Help staff, partners, and industry facilitate digital transformation and technology adoption.

## Liaison

Work, connect, and partner with private industry including startups, technology vendors, food chain, and accelerators.

## Education

Develop content and communications to educate our board, leadership, staff, media, channel, and industry.



Think different.





# The Process



IF I WERE OUR TEENAGE  
GIRL TARGET, I WOULD  
LOVE OUR NEW PRODUCT.

HAVE YOU ACTUALLY  
TALKED TO ANYTO  
MAKE SURE?

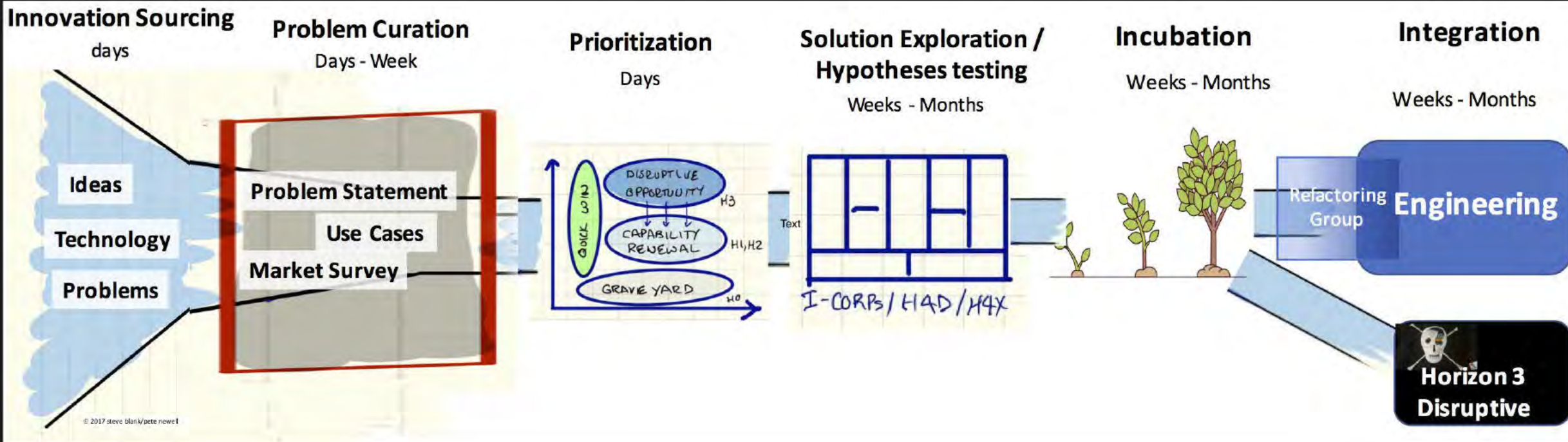
WHAT? AND  
LEAVE THIS  
ROOM?



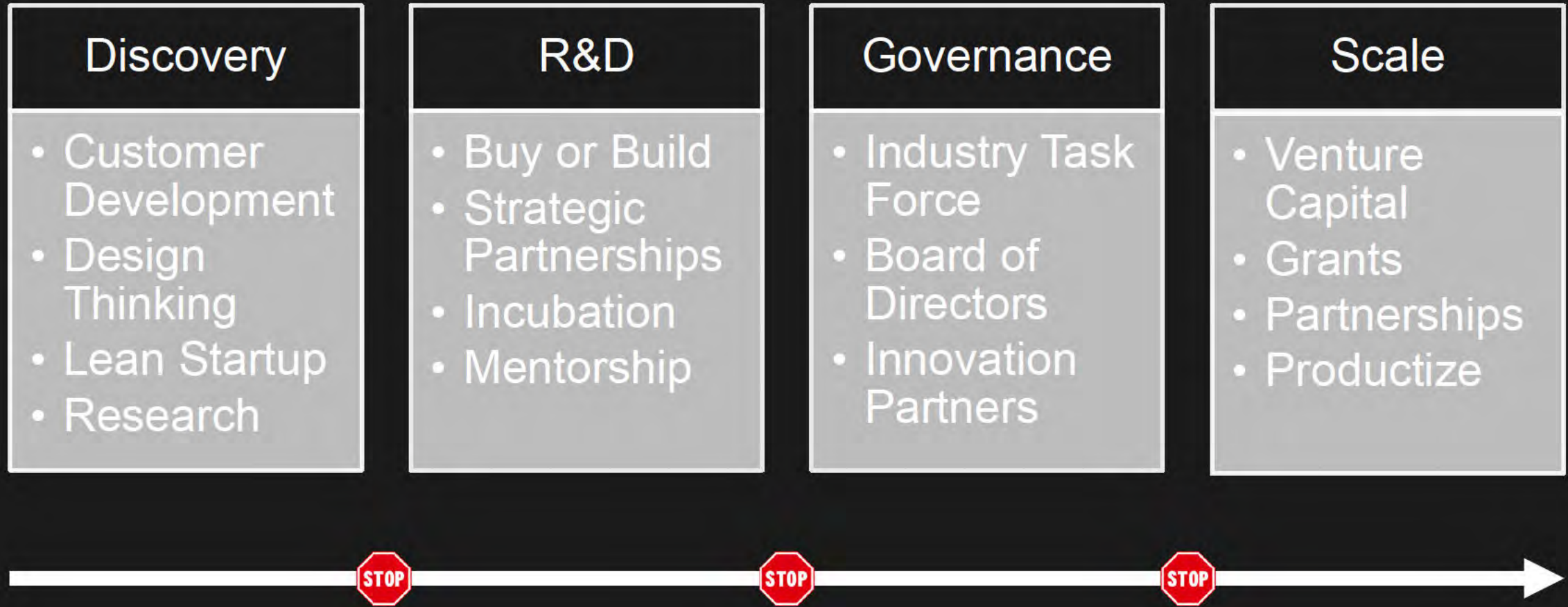
The background image shows a wall covered with numerous yellow sticky notes and a pinkish-purple flowchart. The sticky notes contain handwritten text, including 'Optimizer', 'The Planner', 'travelling together', '2. PROBLEMS / PAINS', 'TOO MANY POINTS FOR COMPARTMENTS', 'Hard to coordinate booking for', 'TOO MANY TABS', and 'Too much irrelevant info on SR cards'. The flowchart consists of interconnected boxes and lines, suggesting a process or system diagram.

# Customer Development





# NPB Innovation Pipeline



# Examples In Action

- **Google Partnership** – Strategic Partnership
- **Blockchain Pilot** – Design Thinking
- **E-Commerce** – Customer Development
- **Voice** – R&D
- **Outreach** – Iowa Agritech, Krobel Corp, FarrPro, Thrive, K-State, Web Geeks, Animal Welfare Committee



# Opportunities

## Now

- Strategic Plan
- Tech Research Report
- We Care / Secure Pork
- Emerging Digital Channels
- Pilot Projects

## Next

- Industry Collaboration
- Pork Tech Summit
- Innovation Pipeline

## Future

- Pork Accelerator
- Pork X Prize
- Pork VC Fund
- Pork Tech Center

# Vision Leads To Steering

*Eric Ries, The Lean Startup*

# What questions do you have?

A fundamental rule in technology says that whatever can be done will be done.

- *Andrew Grove, CEO, Intel*

*People. Pigs. Planet.™*

# NPB Board of Directors Meeting

September 11-12, 2018



*People. Pigs. Planet.™*

# Welcome & Call to Order

Steve Rommerein, President





*People. Pigs. Planet.™*

# Antitrust Guidelines

Steve Rommerein, President



# Antitrust Guidelines

- The National Pork Board assigns the highest priority to full compliance with both the letter and the spirit of the antitrust laws, and it is vital that all activities be conducted in a manner consistent with that policy. Organizations that bring together competitors must be particularly sensitive to avoiding antitrust violations.
- It is illegal for parties to engage in any activities or discussion which could lead to the fixing of prices, the allocating of markets or the boycotting of customers or suppliers. Violations can lead to heavy fines and jail terms as well as civil litigation resulting in the payment of treble damages to anyone injured by such conduct.
- If you have a question whether a certain matter may be discussed, clear it first with an attorney, or if none is available just do not discuss it until it has been cleared.

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# Roll Call & Agenda

Steve Rommerein, President



# Roll Call

## Board Members

Steve Rommereim, **President**

David Newman, **Vice President**

Mike Skahill, **Treasurer**

Terry O'Neel, **Immediate Past President**

Deb Ballance

Alicia Pedemonti

Todd Erickson

Jan Archer

Heather Hill

Pat FitzSimmons

Gene Noem

Bill Tentinger

Gary Asay

Rich Deaton

Scott Phillips

## **Guests:**

**USDA/AMS Liaison:** Craig Shackelford

**Guests:** John Hinnners, Jen Sosin, Brian Martin, Gary Corbett, Adam Bergman, John Hartnett, Will Sawyer, Nate Franzen, Dr. Jason Henderson, Steve Lerch, Scott Alleger

# Agenda

**Tuesday, September 11, 2018**

<b>7:00 AM</b>	<b>Board Meeting</b> <ul style="list-style-type: none"><li>• Welcome, Call to Order, Antitrust Guidelines, Minutes</li><li>• Roll-Call &amp; Agenda</li><li>• Executive Session</li></ul>
<b>9:00 AM</b>	<b>Costco meeting</b>
<b>11:45 AM</b>	<b>Lunch &amp; Construction Update</b> <ul style="list-style-type: none"><li>• Economic Update</li><li>• Finance Update, 2018 Budget &amp; 2019 Draft Budget</li></ul>
<b>2:00 PM</b>	<b>Break</b> <ul style="list-style-type: none"><li>• Fair Oaks Discussion</li><li>• USFRA Discussion</li><li>• DM Landscape – Data Driven Thought Leadership</li></ul>
<b>4:00 PM</b>	<b>Break</b> <ul style="list-style-type: none"><li>• <b>Guest Speaker – Wells Fargo &amp; Thrive Ag</b></li></ul>
<b>5:15 PM</b>	<b>Adjourn</b>
<b>5:30 PM</b>	<b>Board Reception &amp; Dinner</b>

## **Room NAME**

Steve Rommereim

Steve Rommereim

Steve Rommereim & Bill Even

## **Costco Corporate office**

Dr. Steve Meyer, Kerns & Associates

Mike Skahill & Calvin VandeKrol

Brian Martin & Gary Corbett

Bill Even

Jarrold Sutton & Jen Sosin

Adam Bergman & John Hartnett

## **ROOM NAME**



# Agenda

## Wednesday, September 12, 2018

**6:30 AM Breakfast Available**

**7:00 AM Board of Directors Meeting convenes**

- NPB Top 4 Priorities & Secure Pork Supply
- NPPC Update

**9:00 AM Meeting with Google**

**Noon Lunch & 2019 Board meeting calendar**

- SHIC Task Force Report
- Pork Industry Emerging Technology
- **Guest Speaker: Banking Panel**

**3:00 PM Break**

- We Care 2.0 & Sustainability
- Checkoff Success Stories
- Strategic Planning RFP

**5:00 PM Board Meeting Adjourns**

**5:15 PM Walk to Pike's Market**

**6:00 PM Board Dinner**

**ROOM NAME**

**ROOM NAME**

NPB Leadership

NPPC

**Google Corporate Office**

**Bill Even**

Dr. Dave Pyburn

Andy Brudtkuhl

Nate Franzen, Dr. Jason Henderson, Will Sawyer

Dr. Brett Kaysen

Bill Even

Bill Even & John Johnson

**Atrium Kitchen at Pike's Place Market**

# Agenda

Thursday, September 13, 2018

6:30 AM	Breakfast Available	ROOM NAME
8:00 AM	Port of Seattle Tour <ul style="list-style-type: none"><li>• Meet with CEO/Executive Team</li><li>• Discussion/Q&amp;A</li><li>• Tour Pier 69</li></ul>	
10:15 AM	Tour Amazon Go Store	
11:30 AM	Lunch & Tour University of Washington Housing & Food Services	
2:00 PM	Tour/Wine Tasting/Pork Apps <ul style="list-style-type: none"><li>• We Care 2.0 &amp; Sustainability</li><li>• Checkoff Success Stories</li><li>• Strategic Planning RFP</li></ul>	Elsom Cellars Winery Dr. Brett Kaysen Bill Even Bill Even & John Johnson
4:00 PM	Travel back to Hotel	
4:30 PM	Arrive at Hotel – Dinner on your own	

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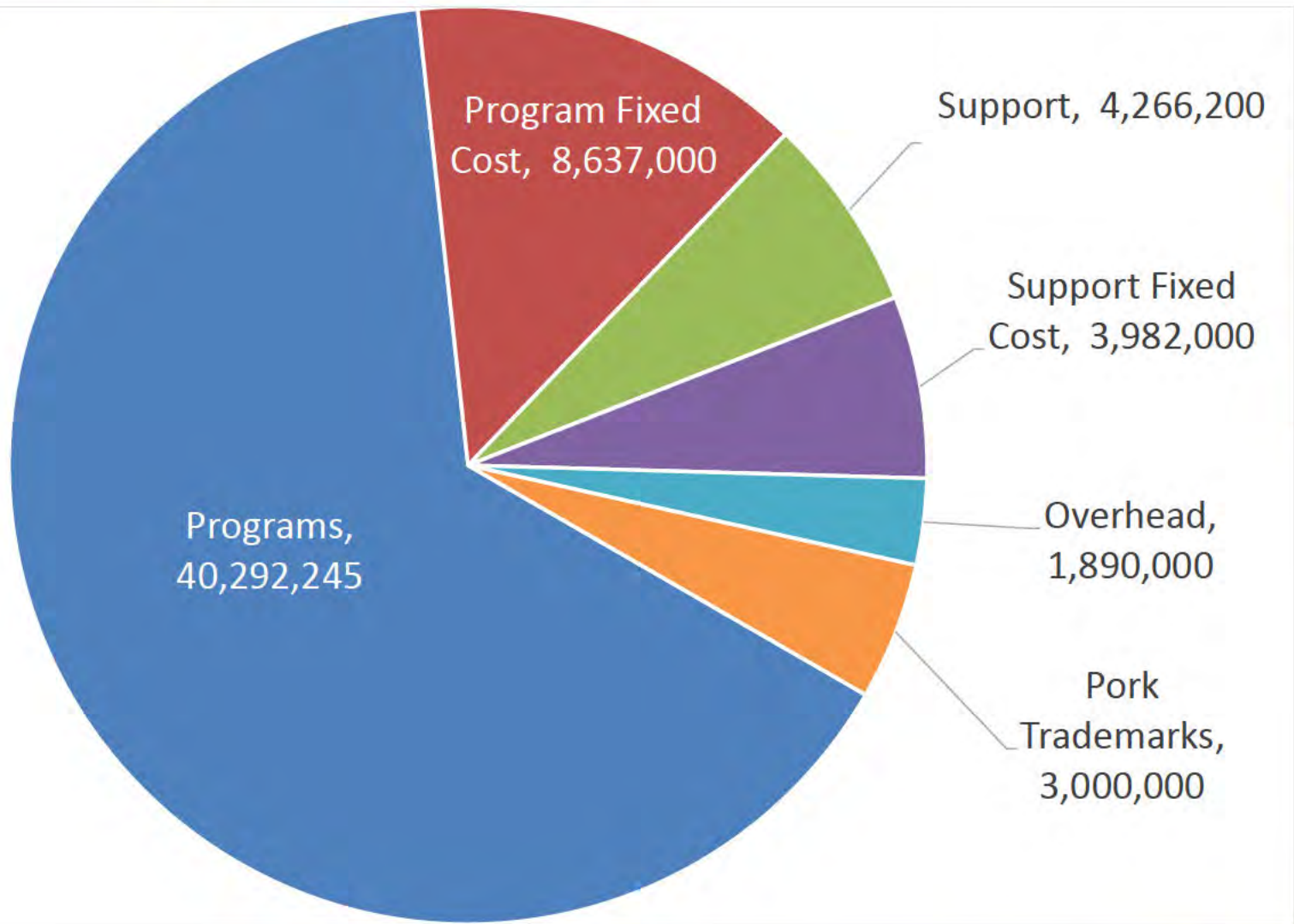
# Approval of Minutes

Steve Rommerein, President



**Board Minutes: June 4-5, 2018**  
**Webinar Conference call: July 30, 2018**

# 2019 Budget Allocation



Program 79%  
Support 13%  
Overhead 3%  
Pork Trademarks 5%



# 2019 Budget Recap – Next Steps

- August - NPB leadership made adjustments to align spending with a declining market.
- September - Board will review 2018 forecast and the 2019 budget.
- October - NPB will update the 2019 budget based on the September USDA hogs and pigs report.
- November - Board will finalize and approve the 2019 budget.
- The National Pork Board will continue to monitor and evaluate current industry issues, spending priorities and revenue projections.

# Bottom Line

- Hog market, trade/tariffs and foreign animal disease increasing market volatility
- Overall budget very similar to 2017...we have been here before
- 2019 Checkoff Revenue forecast decreasing by \$5.6 m
- Proactive management by staff to reduce spending by \$5 m over 2018/2019
- NPB uses a conservative revenue estimate from Dr. Steve Meyer
- Continue to monitor revenue and aggressively engage NPB team on priority opportunities and needs

# Motion

- The Board of Directors approve the 2019 budgets effective October 1, 2018 for Iowa and Minnesota.
- The Board of Directors approve the 2017 Oklahoma Pork Producers Association Audit.

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**What questions do you have?**

This message funded by America's Pork Producers





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# Data-Driven Thought Leadership

Jarrold Sutton, VP-Domestic Marketing

Jennifer Sosin, Advisor-Global Strategy & Insights

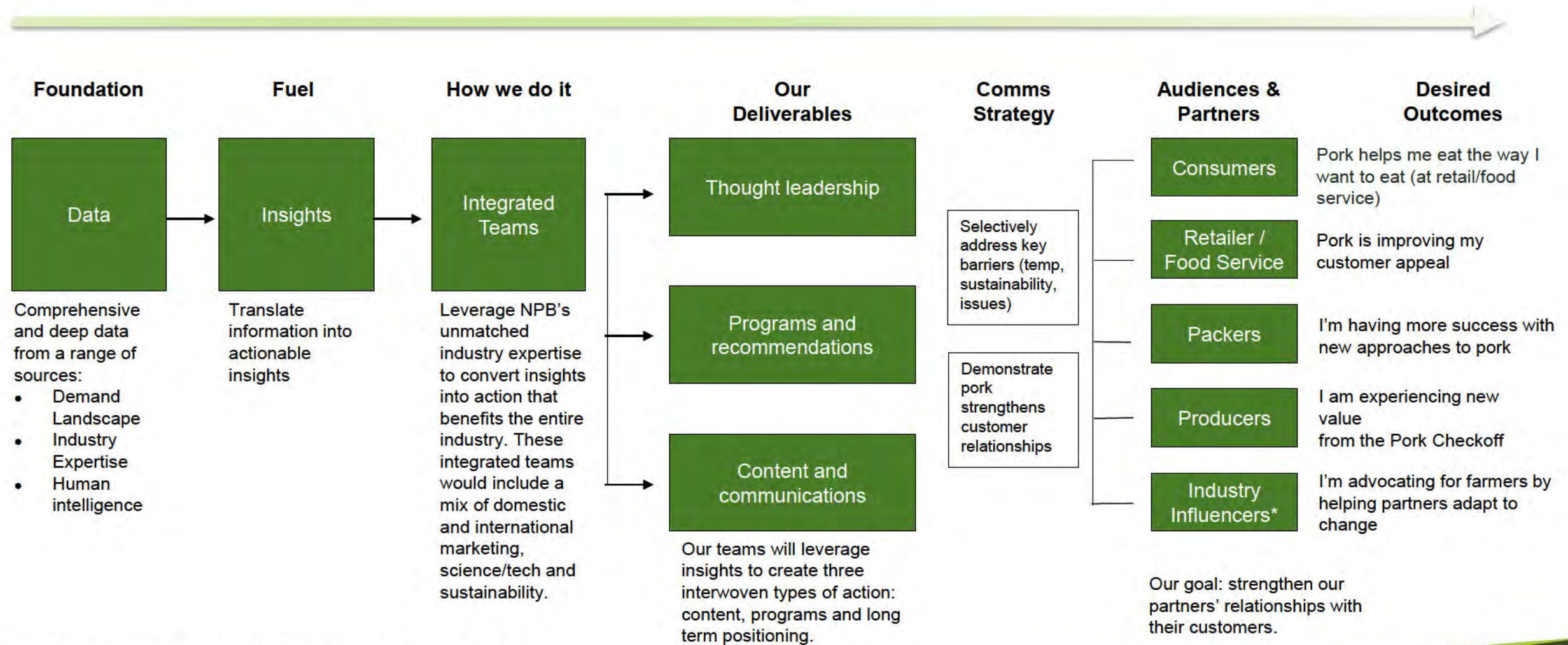




# Agenda

- Communications Plan
- Demand Landscape
- Early Research Results
- What's Ahead

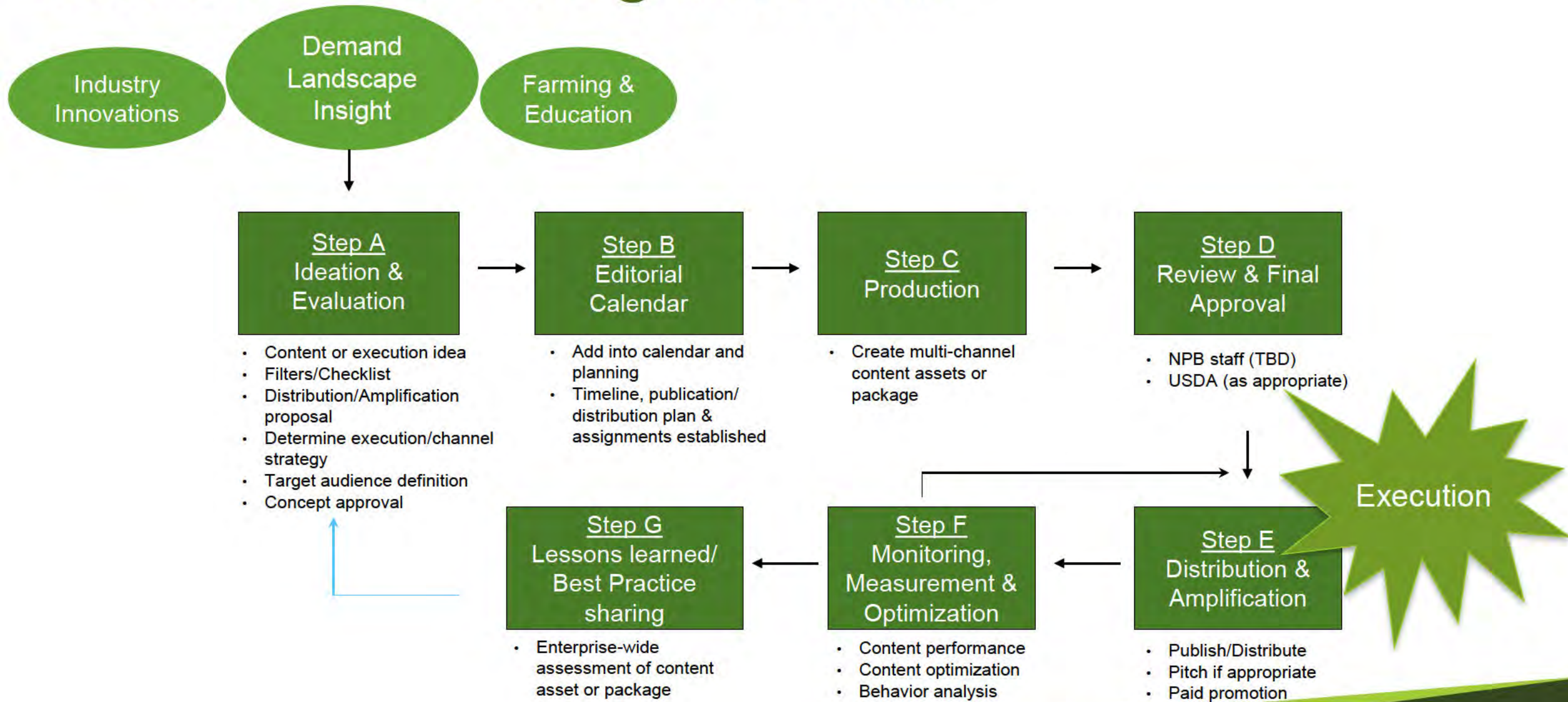
# Data-Driven Thought Leadership Approach



\*Industry Influencers: NPB board and employees; state pork associations, allied partners

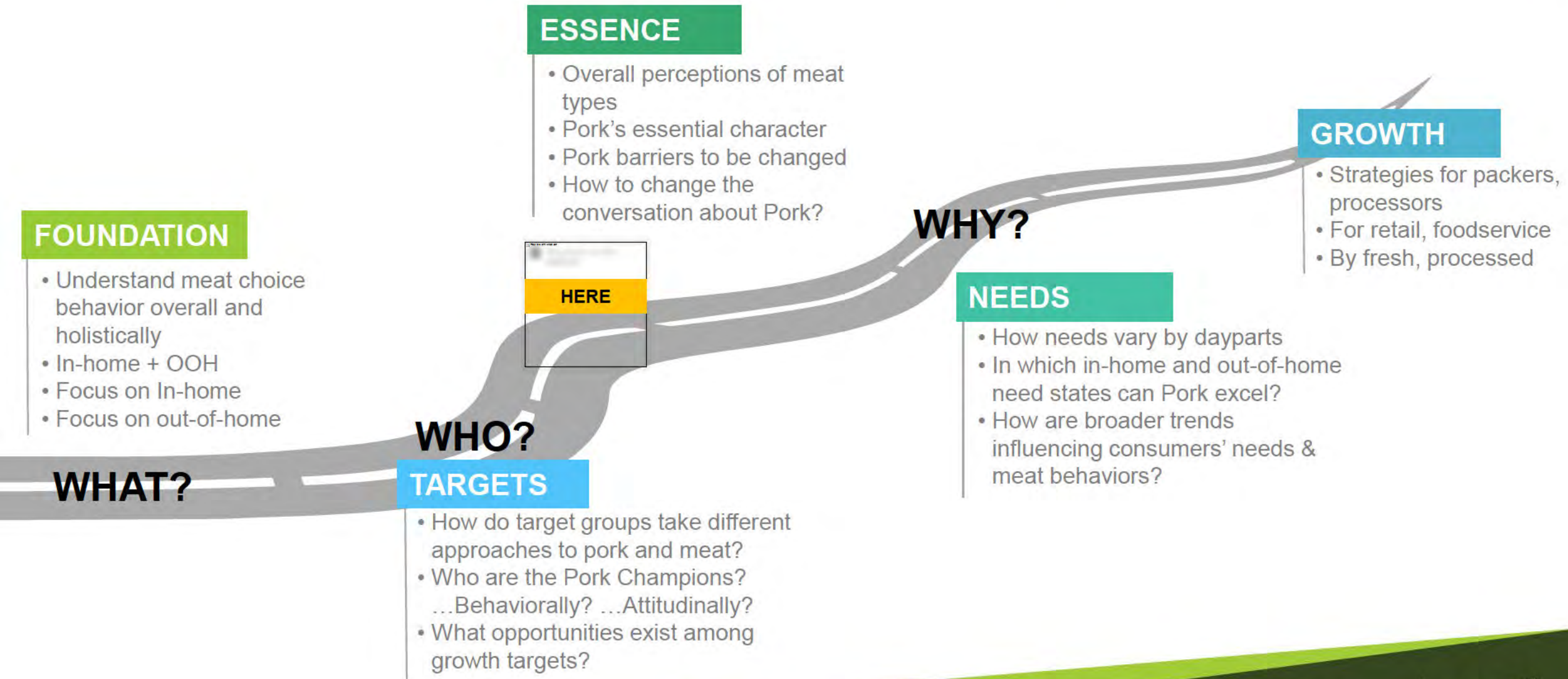


# How the Content Program Works





# Demand Landscape: Analysis Roadmap



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## Early Results





- 97% of US households bought pork last year.
- 79% of US households bought both fresh and processed pork.
- 65% of US households bought a pork loin last year; 59% bought pork chops.
- Pork Shoppers are worth \$263 more a year than Beef Shoppers and \$399 more than Chicken Shoppers.



# Compared to other proteins, pork is...

- Perceived as **less healthy** than other proteins, particularly chicken and seafood
- Less likely than chicken or beef to be seen as **great source of protein**
- **Not kept on hand** as often as chicken and ground beef
- Not top of mind or perceived as **featured in many recipes**
- Perceived as **more complicated** to make / less versatile than chicken
- Less likely to be viewed as **fun to eat**



Fresh Pork



Fresh Beef



Fresh Chicken



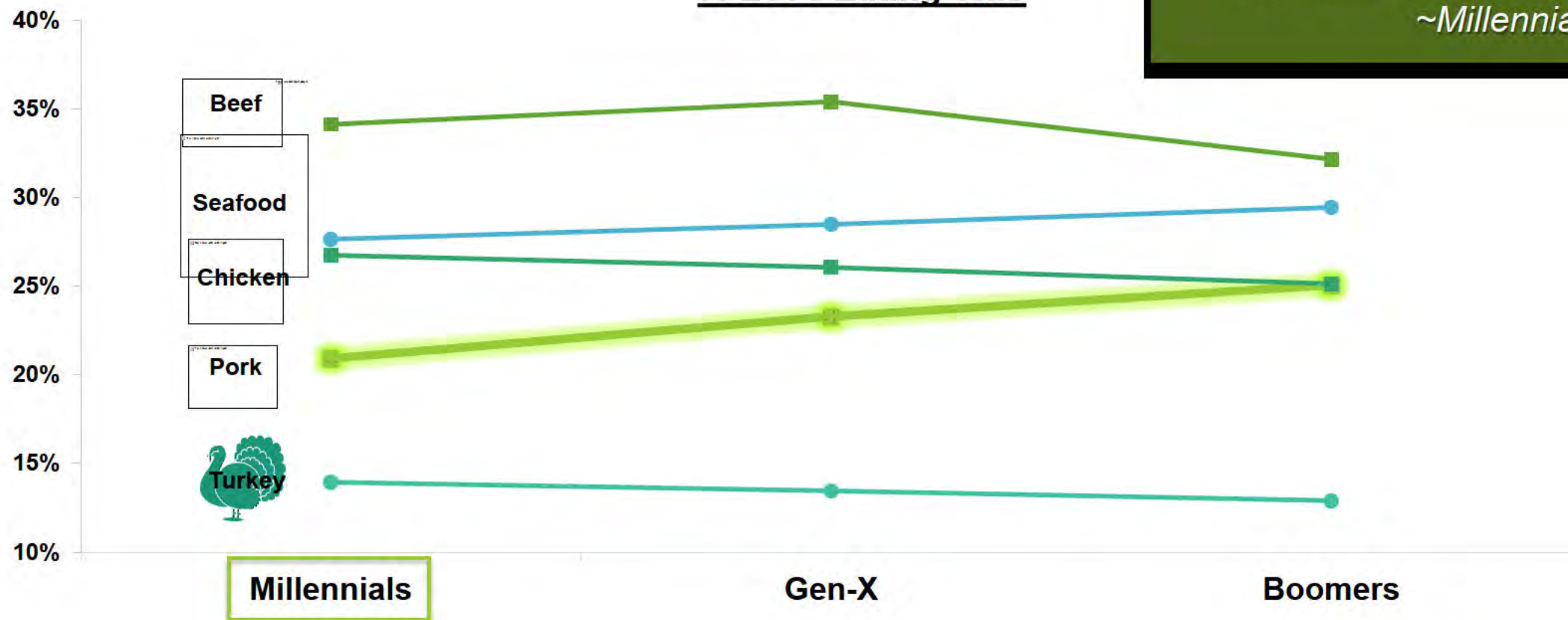
Fresh Turkey



Fresh Seafood

# Millennials Lack 'Love' For Pork

% Love Eating This



*"Honestly, I've had bad experiences with home cooked pork. I only ever order it out. So when shopping, the pork tends to look unappealing to me and I look over it. In general, it's confusing. I don't know how to cook it or what to look for."*

*~Millennial*





Opportunity

69%

of pork consumers are currently over-cooking their pork, targeting well-done or medium well temperatures

BUT

Messaging that pork should be cooked to a medium or medium-rare temperature with a moist and slightly rosy center is effective in convincing 54% of pork consumers to try cooking to a lower temperature



# An Opportunity Space

Top predictors of what proteins consumers choose for dinner at home:

- Tastes delicious
- Easy to prepare
- Quick to prepare
- Keep on hand
- Always satisfied
- **Doesn't need much thought**

**BUT:**

- Only 61% view pork chops as a 'go to' dinner choice in their home vs. 78% for chicken breast
- Only 45% view pork chops as quick and easy to prepare vs. 66% ground beef and 65% chicken breast
- Large pork cuts such as ham, ribs, roasts and tenderloins are viewed similarly, underperforming as a 'go to' and being quick and easy

***Goal: Products and merchandising that make choosing pork an easier choice***



# Grill it Like a Steak



**The 'Un-Kiosk'**  
In-store promotion delivery, designed with grocery shopping in mind: simple, fast & convenient.

Learn More 



### National Pork Board Bonus Sheet

#### HOW TO BAKE PORK CHOPS


1. *What to buy:* thicker cuts, 1 - 1½ inches thick. Bone-in chops provide more flavor due to fat around the bone.
2. Preheat oven to 425°F. Season pork chops.
3. Lightly oil frying pan on medium heat. Sear chops about two minutes per side to secure juices.
4. Bake 6-8 minutes, or until chops reach 145°F as measured with a cooking thermometer.
5. Let chops rest for 3 minutes before serving.

**Medium-Rare\*: 145-150°F**  
\*Chops, steaks and roasts are best enjoyed at an internal cooking temperature of 145°F with a 3 min. rest.

**Medium: 150-155°F**

**Medium-Well: 155-160°F**

**Well: 160°F**



pork.org/cooking

Division of the U.S. Department of Agriculture's Food Safety Inspection Service





# Occasion: Routine Family Dinners

Percent of Home Dinners:  
11%



PRIMARY NEEDS	Feeding a family
DEFINING NEED STATE	Convenient, on hand, requires little thought
INFLUENCES	Easy to prepare, quick, simple, family favorite, on hand, budget-friendly
OCCASION	Regular / everyday
WHO INVOLVED	4+ / Kids
PREPARATION	Not a lot of time; had it on hand
HOW PROTEIN SERVED	In something; taco/burrito, casserole, mixed with veggies
INCOME	Higher income (\$100k+)
FRESH PORK USAGE	Moderate
OPPORTUNITY	Potential for routine use among larger families

*Everyday weeknight dinners in our house can be crazy. We both work full-time and can't even begin to think about dinner until 6pm. By then everyone is starving. I need something fast, easy and guaranteed-to-please. I don't want to have to think too much about how to prepare it. And if it's not already in the refrigerator or freezer, it's not happening.*



# Occasion: Quick Healthy Single Dinners

Percent of Home Dinners:  
12%



PRIMARY NEEDS	Feeding yourself (solo eater)
DEFINING NEED STATE	Convenient, healthy
INFLUENCES	Quick, easy to prepare, healthy, lighter meal and within budget
OCCASION	Regular / everyday
WHO INVOLVED	One person
PREPARATION	Very little time / rushed; had it on hand <u>or</u> it was already prepared
HOW PROTEIN SERVED	Main dish or in something, often a salad or with veggies
GENDER / INCOME	Female; \$100K+HHI
FRESH PORK USAGE	Low
OPPORTUNITY	Innovation around single serve and/or prepared (like rotisserie chicken). Healthy options.

*Most weeknights I wind up working late at the office. By the time I get home, I don't have the time or energy to cook myself a well-balanced meal and I'm tired of take-out. So what I need is something really simple or even pre-made but still healthy. Rotisserie chicken is a great standby. All I have to do is pull it out of the fridge, throw it on salad and voila, a healthy meal in minutes.*

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## What's Ahead

# Moving Forward

- Continued analysis and data reporting to drive:
  - Dialogue with partners
  - Mar/Comms broadly
  - Partnership and pilots



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# NPB Top 4 Priorities & Secure Pork Supply

NPB Leadership







## Goal: Strengthen State Pork Association Relationships

**Summary:** Completed 29 state profiles (goal is 20). Led to 5 actions:

- Streamline the Process for State Funding  
*Starting "Cost Share" sub project team for web-based process*
- Collaborate on Developing Human Capital for the Industry  
*Meeting on 8/31 to discuss launching task force with state staff*
- Develop Effective Two-Way Communication Platform  
*Platform discussed as part at NPB Tech Modernization; "Top 5" reinstated*
- More State Involvement in Key Initiatives  
*Emphasis on state staff involvement on NPB projects (Ex: Tech Modernization)*
- Collaborate with States on Local Industry Image  
*Potential framework with We Care 2.0*

**Up Next:** Project team meeting on 8/31, Communication to states on progress, Establishing framework showing Checkoff investment & activity within each state



## Goal: Embrace a Digital-first Mindset

**Summary:** 3 of 4 Deliverables already met, progress continues on the final deliverable (implementing content distribution framework).

- KPIs center on duration of site visit, engagement & downloads.
- Audience Map Complete (producers, packers, retail, states, etc.)
- Digital Asset Solution complete and will transition from project to the continuing operation of tagging/archiving digital assets

**Up Next:** Continuing to use mapping to flesh out content distribution framework that is consistent with the Communications Department redesign; Digital Asset Management oversight will transition to the new Director of Creative Services



## Goal: Execute the B2B Strategy

**Summary:** Approximately 75% towards meeting the goal. As of 8/24, the DM team has:

- Met with 72 of the top 100 Retail & Foodservice companies
- 8 of the 8 Major US Packers
- Resulting in 24 Pilot Projects launched (goal is 25)

**Up Next:** Channel Marketing Team meeting August 30 & 31 to identify and secure meetings with remaining channel partners; three additional Google/Famebit pilot projects Oct.-Dec.: Walmart, Sam's Club, Costco (business confidential); RAC and PPIC meeting October 4 & 5



## Goal: Increase International Marketing Engagement

**Summary:** 2 of 3 Deliverables already met, third will be completed shortly.

- Met with 6 of the 8 Major US Packers (meetings to be scheduled with remaining Packers – Seaboard & Smithfield)
- NPB IM Committee worked with USMEF to craft 2019 budget to deliver maximum return on producer investment
- Successful trip to Dominican Republic with NPB Leadership

**Up Next:** USMEF Heartland Tour & IM Committee Asia Immersion Mission (both occur in September)



# Secure Pork Supply - AgView Update

- AgView System is still on target for a February 2019 release
  - Mobile apps
    - Mobile certificate of veterinary inspection (mCVI)
      - Beta test occurred Aug 22<sup>nd</sup> – 27<sup>th</sup> 2018
      - Release date September 8<sup>th</sup> 2018
    - Mobile health (mHealth)
      - Release date moved back to provide full focus on AgView development
      - Other benefit – Allows time to flush out SPS & PQA additions to the app

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# NPPC Update

Dallas Hockman



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# 2019 Board Meeting Dates

Bill Even, CEO





# Recommended 2019 Board Meeting Dates

- January 15-16 – January Board Meeting – Des Moines, IA
- March 4-8 – March Board Meeting/Pork Industry Forum – Orlando, FL
- June 3-7 – June Board Meeting /World Pork Expo – Des Moines, IA
- September 10-11 – September Board Meeting – Sioux Falls, SD; Omaha, NE; Minneapolis, MN; Manhattan, KS
- November 5-6 – November Board Meeting – Des Moines, IA

\* Conference calls and Webinar's as needed

# September 2019 – Location Recommendation

- Omaha, Nebraska
  - NE Pork Producers, Farm Credit Services, DTN, Gavilon
- Minneapolis, Minnesota
  - MN Pork Producers, Swine Vet Center, Institute for Ag & Trade Policy, Rabo Agrifinance, Hubbard Feeds, Cargill, Sygenta (higher efficacy corn), Grain Exchange
- Sioux Falls, South Dakota
  - SD Pork Producers, John Morrell Plant, South Dakota Swine Unit, Hutterite Colony
- Manhattan, Kansas
  - KS Pork Producers, National Bio & Agro Defense Facility

# Board Communication

- How much information do you want regarding NPB communication? Monthly?
- What information do you want the CEO to share?
- What type of format do you want to receive?

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**What questions do you have?**

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# SHIC Taskforce Report

Dr. Dave Pyburn, SVP Science & Technology





# SHIC Funding Task Force

- **Issue:** Options for response to advisement from Pork Forum
- **Background:** 2018-ST1 from IPPA
  - “The National Pork Board is advised to support continued funding of the Swine Health Information Center. The appropriate funding shall be established by the National Pork Board.”
- **SHIC Funding Task Force formed:** Harry Snelson, Russ Nugent, Daryl Olsen, Gene Noem, Terry O’Neel, Marlin Hoogland, Bryan Humphreys, Paul Sundberg, Dave Pyburn
- **Task Force Objective:** Develop recommended options for NPB Board response to the 2018 Pork Forum Advisement on Swine Health Information Center (SHIC) Support
- **Expected Outcome:**
  - Three recommendation options, with rationale for each, for response to the 2018 Pork Forum advisement to be delivered to the NPB Board at their September Board meeting

# SHIC Funding Task Force

- **Critical Principles that will guide our strength and weakness assessment and then ultimately our ranking of the best options:**
  - Producer and pork industry benefit maximized with mission control and direction remaining in the hands of the pork industry
  - Continued focus on emerging disease monitoring, preparedness, prevention and response mission
  - Autonomy of an organization sufficient to enable rapid, flexible and focused action
- **All Options Discussed:**
  1. Work is absorbed by NPB and/or possibly other organizations
  2. 100% NPB Funded from Checkoff
  3. Funded x % by NPB and y % by Allied Industry
  4. 100% Allied Industry funded
  5. Absorbed by AASV and funded by them 100% (all other outside funding ends)

# SHIC Funding Task Force

- All Options Discussed:
  6. Funded x % by AASV and y % by Allied Industry or NPB
  7. Government grant funded (from where?)
  8. Funded x % by NPB and y % by a University – NPB then administers the research programming while the University administers the emerging disease programming
  9. Fund from a separate voluntary checkoff or current checkoff increase
  10. Fund from voluntary producer contributions
  11. Income from technology developed (royalties or fee paid for test usage)
  12. Other species work and funding
  13. Canadian Pork Council (funding assistance – not full funding – a collaboration)

# SHIC Funding Task Force

- **Discussion and Consensus Ranking of Options by Entire Task Force**

1. Five year funding by checkoff as is now (or year to year if NPB Board determines that is the most feasible for overall budgeting) and SHIC would have ability to hold and manage reserve funds from year to year.
  2. Majority checkoff funded to maintain programming control and then supplement with partner funding.
  3. Programming absorbed back into NPB (similar to USPCE arrangement).
- 
- Ask NPB Board to start funding after the current expiration of 5<sup>th</sup> year in this first round of funding (i.e. put in the 2020 budget plan). This would enable SHIC to start a reserve fund that could be held for a potential lean budget year.



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# Pork Industry Emerging Technology

Andy Brudtkuhl, Director Emerging Technology







FIG

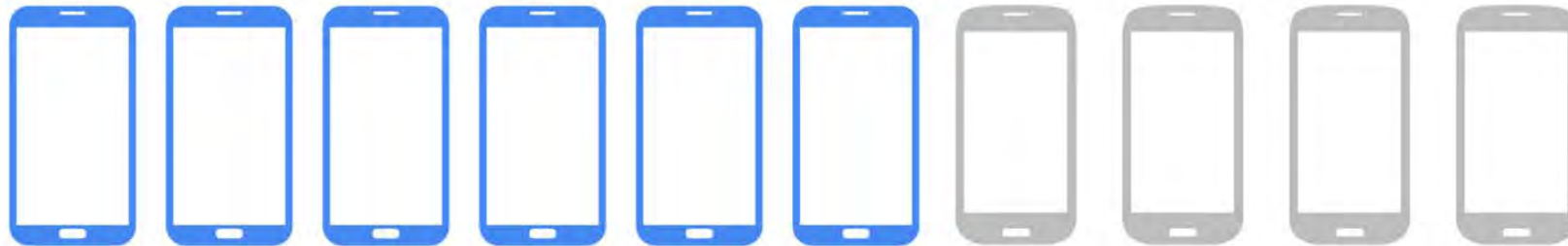
# Emerging Technology

And the evolving food system

**pork**  
**checkoff**®

# Fueled By Consumer Behavior

Consumers are willing to pay up to 13% more if their food is sustainable



**6 out of 10** millennials use their **smartphones or tablets** to help out in the kitchen



***Powered By***  
**Technology**



***Funded By***  
Venture Capital  
Corporate Investment





## Upstream

Ag Biotech, Farm Management SW, Farm Robotics & Equipment,  
Bioenergy & Biomaterials, Novel Farming,  
Agribusiness Marketplaces, Midstream, Innovative Food

**\$4.2bn**

INVESTMENT

**+24%**

GROWTH (\$)

**569**

DEALS

**-2%**

GROWTH (#)

**839**

UNIQUE INVESTORS

**\$275M**

LARGEST DEAL

## Downstream

In-store Restaurant & Retail, Online Restaurants, eGrocery,  
Restaurant Marketplaces, Home & Cooking

**\$5.9bn**

INVESTMENT

**+34%**

GROWTH (\$)

**425**

DEALS

**-23%**

GROWTH (#)

**648**

UNIQUE INVESTORS

**\$1bn**

LARGEST DEAL



# AG TECH: 100+ TECHNOLOGY COMPANIES CHANGING THE FARM

## NEXT GEN FARMS



## FARM MANAGEMENT SOFTWARE



## PRECISION AGRICULTURE AND PREDICTIVE ANALYTICS



## MARKETPLACES



## ROBOTICS AND DRONES



## SENSORS



## SMART IRRIGATION



## PLANT DATA/ANALYSIS





# The Supply Chain & Logistics Tech Market Map



## Digital Freight Shipping



## Sensors & Asset Tagging



## Inventory Management



## Blockchain



## Food Supply Chain



## Supply Chain & Logistics Analytics



## Trucking Marketplace & Fleet Management



## Warehousing



## Enterprise Resource Planning



## E-Commerce Logistics



## Autonomous Trucking



## Last-Mile AV & Drones



## Last-Mile Delivery Services







# THE GROCERY STORE TECH MARKET MAP

## REAL-TIME SHELF MONITORING

GoSpotCheck

mibee observa

Trax image recognition  Click and Walk

## MERCHANDISING TOOLS

blueyonder

RANGE-me

shelvspace

ALKEMICS



## STORE ROBOTS & CHATBOTS

fellow ROBOTS simbe  COSY  satisfi

## INTERACTIVE DISPLAYS

 cloudtags  ENPLUG  
Ksubaka aila  eyeQ

## AUGMENTED/VIRTUAL REALITY TOOLS

 InContext SOLUTIONS  AUGMENT

## DIGITAL LABELS

ScanLife  
supersmart  
ITEMMASTER

## MUSIC MANAGEMENT

 ROCKBOT

Soundtrack Your Brand

KAZUM  ATMO SELECT

## SHOPPER FEEDBACK

TruRating.  WYZERR  
ecrebo

## FOOD WASTE MANAGEMENT

 FoodMaven  MAT SMART  
 Enterra  Spoiler Alert

## IN-STORE REWARDS

ibotta  SavingStar  
Fetch Rewards  KOUPON MEDIA  FIVESTARS

## IN-STORE SHOPPER INSIGHTS

 MetaBrite  CIVALUE  
 manthan  Index

## SMARTER RECEIPTS

 flexReceipts  
 snapcart

## PROMOTION OPTIMIZATION

 eversight  Quri  
 Shelfbucks

## BEACONS & LOCATION TRACKING

 Euclid analytics  FOOTMARKS  sewio  
 RetailNext  estimote  SWIRL  
beabloo  PlaceIQ  
 Scanalytics Inc.  innorange  walkbase  bfonics

## STORE MANAGEMENT

 frotek  SHOPKEEP  
 lightspeed  
bindo POS

## STORE GARDENS

BRIGHT FARMS

 CBINSIGHTS

# The Evolution Of Farming





## EMERGING TECHNOLOGY

NEURAL NETWORKS  
DEEP LEARNING  
BLOCKCHAIN  
MOBILE  
AUGMENTED REALITY  
IOT  
E-COMMERCE  
ANALYTICS  
DIGITAL  
ARTIFICIAL INTELLIGENCE  
CRYPTOCURRENCY  
VIRTUAL REALITY  
BIG DATA  
VOICE  
DRONES  
MIXED REALITY  
SMART KITCHEN  
VIRTUAL ASSISTANTS  
ROBOTICS  
3D PRINTING  
MACHINE VISION  
MACHINE LEARNING

## GOVERNANCE

Dir Emerging Tech

NPB Staff

Sr. Leadership

Board of Directors

Industry Task Force

## STAKEHOLDERS

Farm

States

Logistics

Packers

Foodservice

Retail

Consumer

## R&D

Research new and emerging technology while developing proof of concept models.

## Consulting

Help staff, partners, and industry facilitate digital transformation and technology adoption.

## Liaison

Work, connect, and partner with private industry including startups, technology vendors, food chain, and accelerators.

## Education

Develop content and communications to educate our board, leadership, staff, media, channel, and industry.





Think different.



# The Process



IF I WERE OUR TEENAGE  
GIRL TARGET, I WOULD  
LOVE OUR NEW PRODUCT.

HAVE YOU ACTUALLY  
TALKED TO ANYTO  
MAKE SURE?

WHAT? AND  
LEAVE THIS  
ROOM?

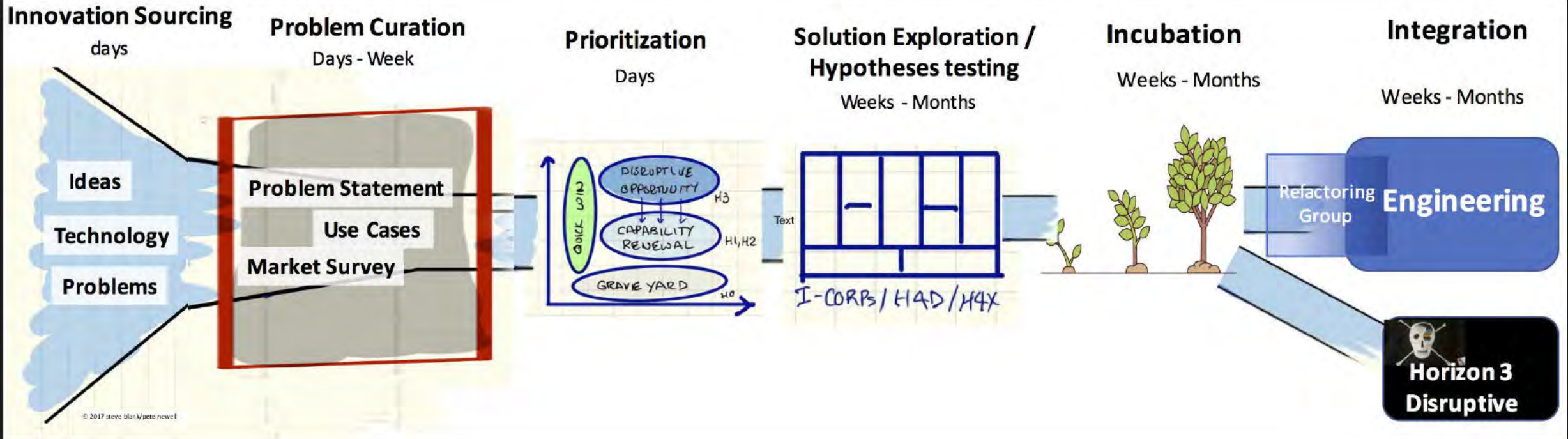


TOM  
FISH  
BURNE

The background image shows a wall covered with numerous yellow sticky notes and a pinkish-purple flowchart. The sticky notes contain handwritten text, including 'Optimizer', 'The Planner', 'travelling together', '2. PROBLEMS / PAINS', 'TOO MANY POINTS FOR COMPARTS', 'TOO MANY TABS', and 'Hard to coordinate booking for'. The flowchart is partially visible, showing a hierarchical structure with boxes and connecting lines.

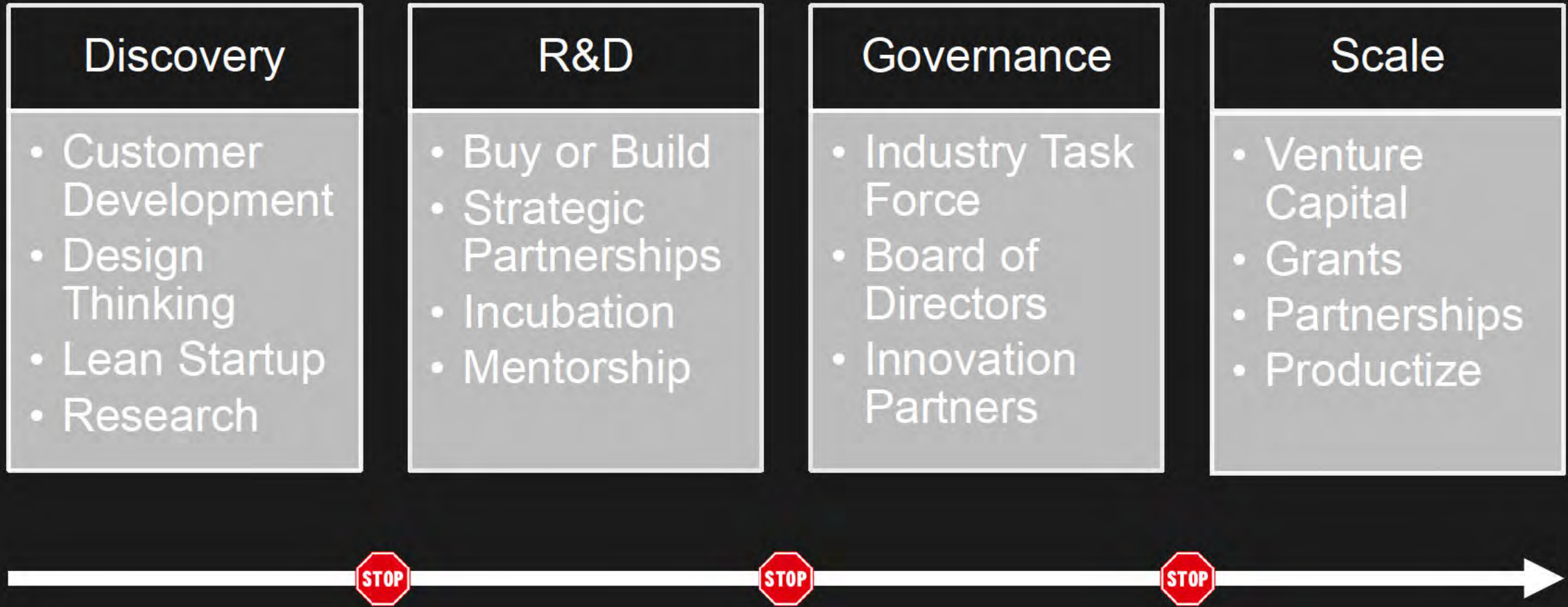
# Customer Development







# NPB Innovation Pipeline



## Examples In Action

- **Google Partnership** – Strategic Partnership
- **Blockchain Pilot** – Design Thinking
- **E-Commerce** – Customer Development
- **Voice** – R&D
- **Outreach** – Iowa Agritech, Krobel Corp, FarrPro, Thrive, K-State, Web Geeks, Animal Welfare Committee

# Opportunities

Now	Next	Future
<ul style="list-style-type: none"><li>• Strategic Plan</li><li>• Tech Research Report</li><li>• We Care / Secure Pork</li><li>• Emerging Digital Channels</li><li>• Pilot Projects</li></ul>	<ul style="list-style-type: none"><li>• Industry Collaboration</li><li>• Pork Tech Summit</li><li>• Innovation Pipeline</li></ul>	<ul style="list-style-type: none"><li>• Pork Accelerator</li><li>• Pork X Prize</li><li>• Pork VC Fund</li><li>• Pork Tech Center</li></ul>

# Vision Leads To Steering

*Eric Ries, The Lean Startup*



# What questions do you have?

A fundamental rule in technology says that whatever can be done will be done.

- *Andrew Grove, CEO, Intel*

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# We Care 2.0 & Sustainability

Dr. Brett Kaysen, AVP Sustainability



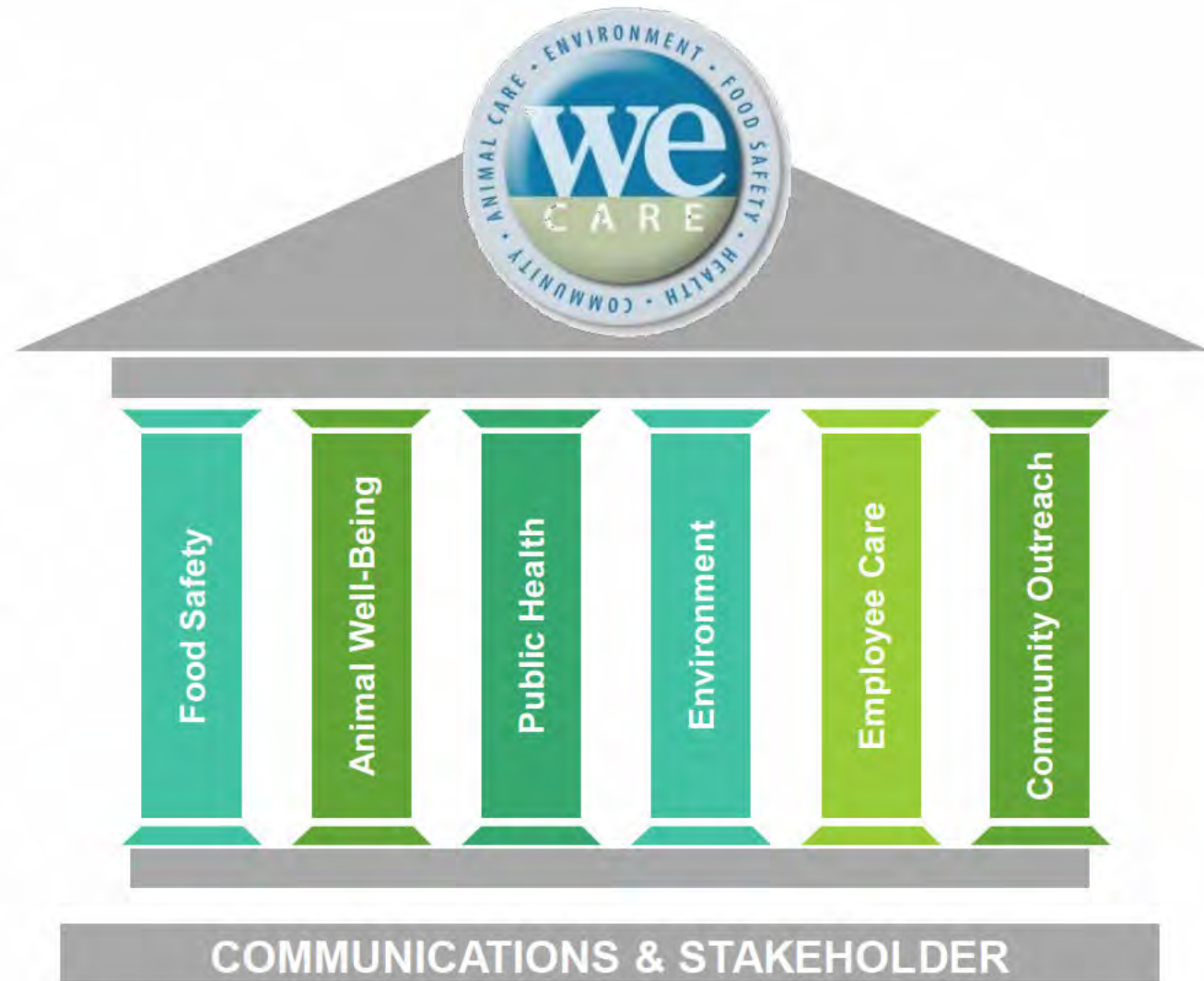
# Our Foundation

## Vision

The National Pork Board will continuously improve and collaborate to do what's right for people, pigs and the planet.

## Values

1. We value all diversity of opinion and strive for collaboration.
2. We embrace the industry's We Cares principles.
3. We do what's right – for people, pigs and the planet.
4. We are proactive in defining solutions for emerging challenges.
5. We are committed to continuous improvement in all we do.





# Pork Industry Sustainability: Parallel Paths

**We Care  
Task Force**



**Proactive  
Engagement  
& Outreach**

# We Care Task Force

## Industry leadership

- Gene Noem, Board Member (Co-Chair)
- Jen Sorenson, Iowa Select Farms (Co-Chair)
- Phil Borgic, Borgic Farms, Inc.
- Jamie Burr, Tyson Foods
- Andy Curliss, North Carolina Pork Council
- Joe Dykhuis, Dykhuis Farms
- Pat McGonegle, Iowa Pork Producers Association
- Randy Spronk, Spronk Brothers, LLP
- Kay Stinson, Seaboard Foods
- Kraig Westerbeek, Smithfield Inc.
- Bradley Wolter, The Maschhoffs, Inc.





# We Care Task Force: What We'll Deliver

A draft U.S. pork industry sustainability strategy guidance document for independent consideration by the boards of directors at NPB and NPPC:

1. Background
2. Goals
3. Outcomes
4. Composition
5. Scope
6. Budget
7. Timeline
8. Recommendation



# We Care Task Force: What We've Learned

- “Reigniting” We Care
- What it means will be different for everyone
- Emphasis on offense, with allowance for defense
- Will address both internal and external needs

# We Care Task Force: Where We're Heading

U.S. pork producers are reigniting the We Care initiative to be proactive and take charge of our own destiny in order to meet our customers' and consumers' increased expectations for transparency and proof of responsible pork production at the local, state, national and international level.

*We Care* will:  
Increase trust  
Grow demand  
Minimize disruptions



# Proactive Engagement & Outreach

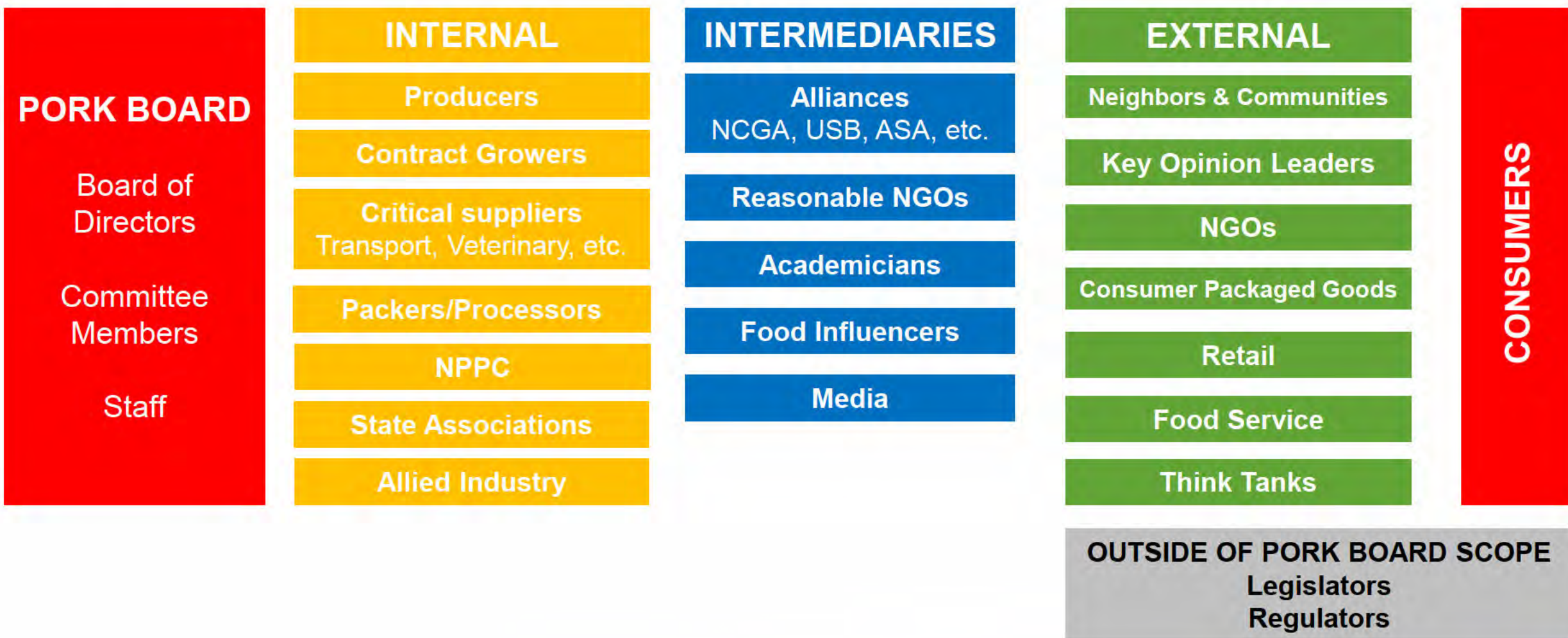
## Strategies:

1. Engage key audiences by establishing consistent content distribution
2. Support state pork associations through tailored strategy and content sharing
3. Support We Care Task Force during recommendation phase and with launch of Task Force findings/recommendations
4. Centralize National Pork Board efforts to ensure resources are maximized and success demonstrating value is relayed to producers





# Target Stakeholders



# Unify Our Efforts





# The Ask

- Be ready to receive a recommendation at the November board meeting.
- Understand your desired level of engagement.



**“Coming together is a beginning.  
Keeping together is progress.  
Working together is success.”**

*Henry Ford*



*People. Pigs. Planet.™*

**What questions do you have?**

*People. Pigs. Planet.™*

# Checkoff Success Stories

Bill Even, CEO



*People. Pigs. Planet.™*

# Strategic Planning RFP

Bill Even, CEO

John Johnson, COO





# From Old



# To New

## **Domestic Marketing**

- *Old School Direct Consumer ads; Silos*

## **International Marketing**

- *Passive and reactive; The “Checkbook”*

## **Science & Technology**

- *Pure academic research*

## **Producer Services / State Relations**

- *Programs with limited state outreach*

## **Communications**

- *Silo mentality and reactive*

## **Finance**

- *Paper-based, process-heavy*

## **Human Resources**

- *Complaint department*

## **Information Technology**

- *Infrastructure and PC Training*

## **Domestic Marketing**

- *Data & Insight-driven, B2B Consultants; Digital*

## **International Marketing**

- *Aggressive, proactive partner; Insight-driven*

## **Science & Technology**

- *Academic research + Outreach; RD focus*

## **Producer Services / State Relations**

- *Program excellence; States & segment focus*

## **Communications**

- *Digital-first; Aligned with issues; Agency model*

## **Finance**

- *Online-based, outcome-focused; Proactive*

## **Human Resources**

- *Coaching / People development; Consultative*

## **Information Technology**

- *Analytics drive decisions; Emerging Tech focus*



# Goal Of Strategic Planning

- Identify Opportunities and Challenges
- Define Strategic Role for NPB in Addressing Same
- Give Clarity and Focus to Organization's Efforts
- Establish a Common Organizational Vision of What Success Looks Like

# Desired Elements

- World is rapidly changing, we need a “rolling plan” that can be tweaked annually, as opposed to a static 5-year plan
- Clear goals and objectives desired that facilitate:
  - alignment and clear focus across organization
  - relevant, efficient and impactful program execution
  - operation at the speed of business
  - attraction of the best and brightest staff

# Historically, NPB has utilized Task Forces to Develop Strategic Plans

## 2009

- Jan Archer
- Tim Bierman
- Craig Christensen
- Terry Coffey, Murphy Brown
- Everett Forkner
- Terry Holton, Seaboard
- Mark Legan, NPPC
- Julie Maschhoff
- Gene Nemechek
- Russ Sanders, Pioneer
- Phil Seng, USMEF
- Larry Sitzman, NE State Executive
- Steve Weaver
- Wendy Wintersteen, IA State Dean
- Doug Wolf, NPPC

## 2014

- |                                     |                          |
|-------------------------------------|--------------------------|
| Jay Akridge, Purdue University Dean | Leann Saunders, USMEF    |
| Jan Archer                          | Mike Skahill, Smithfield |
| David Baskins, Walmart              | Randy Spronk, NPPC       |
| Bob Dykhuis                         | Joe Swedberg, Hormel     |
| Rich Gallant, Cargill               | Glen Walters             |
| Jim Heimerl, NPPC                   | Karen Richter            |
| Joe Jordan, Domino's Pizza          | Craig Rowles             |
| Roy Lee Lindsey, OK State Executive | Rick Parker, JBS         |
| Dale Norton                         |                          |

# And, we have employed a facilitator

**2009** - Bob Ludwig, The Hale Group, Boston, MA

**2014** - Kerry Tucker, Nuffer, Smith Tucker, San Diego, CA



# Other inputs

- Informed Futurist Panel used in 2009
- Food Foresight Panel used in 2014
- Input from program committees
- Interviews with industry stakeholders
- Economic analysis of trends
- 3 Producer listening sessions used in 2009
  - Omaha, NE
  - Indianapolis, IN
  - Clinton, NC

*People. Pigs. Planet.<sup>SM</sup>*



This message funded by America's Pork Producers

